

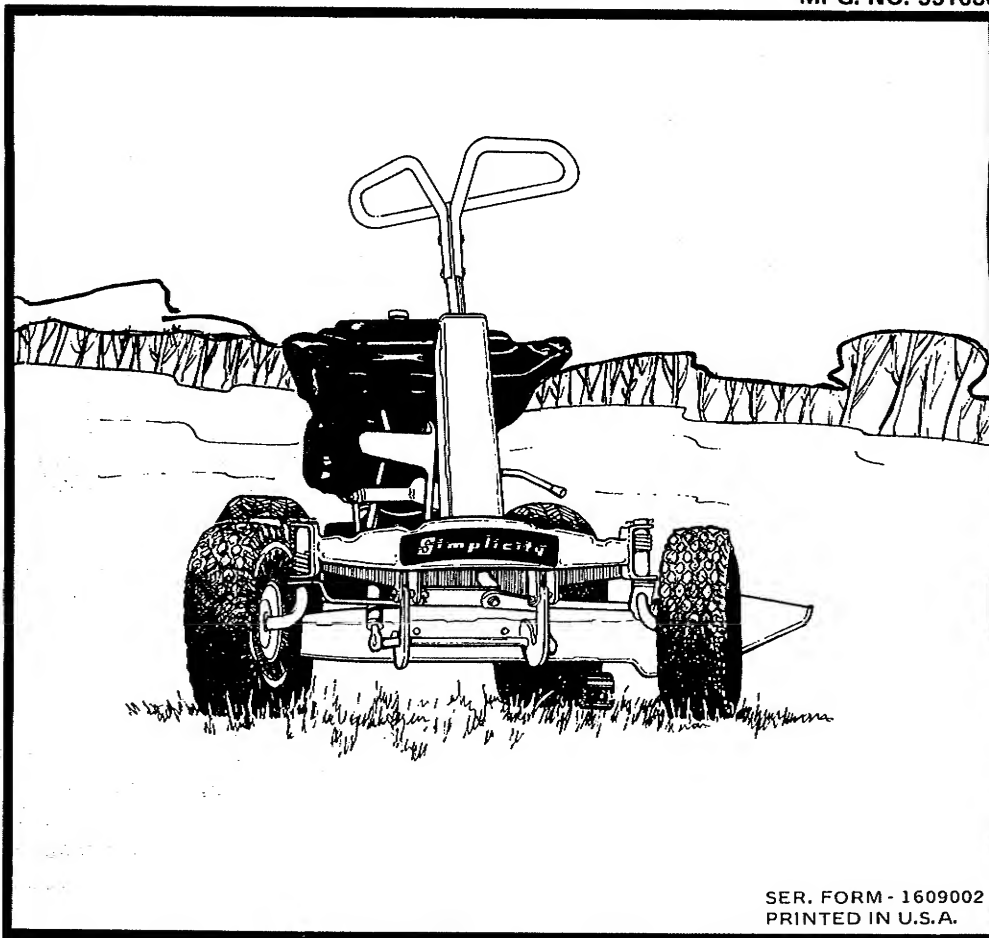
# ***Simplicity***

## **OWNER'S & PART'S MANUAL**

**MFG. NO. 991020**

# **8HP - GRABBER**

**INCLUDED IS ASSEMBLY INSTRUCTION  
FOR DRAWBAR AND GRASS CATCHER ADAPTOR  
MFG. NO. 991036**



**SER. FORM - 1609002  
PRINTED IN U.S.A.**

## SAFETY PRECAUTIONS TO PROTECT YOURSELF AND OTHERS

### IMPORTANT

#### OPERATION

Know the controls and how to stop quickly. **READ THE OWNER'S MANUAL.**

Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.

Do not carry passengers. **KEEP CHILDREN AND PETS A SAFE DISTANCE AWAY.**

Clear work area of objects which might be picked up and thrown.

Take all possible precautions when leaving vehicle unattended; such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.

Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.

Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

Stay alert for holes in terrain and other hidden hazards.

Use care when pulling loads or using heavy equipment.

- A. Use only approved drawbar hitch points.
- B. Limit loads to those you can safely control.
- C. Do not turn sharply. Use care when backing.
- D. Use counterweight (s) or wheel weights when suggested in owner's manual.

Watch for traffic when crossing or near roadways.

Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.

Do not change engine governor settings or overspeed engine.

Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.

#### FUEL AND FIRE HAZARDS

Handle gasoline with care -- it is highly flammable.

- A. Use approved gasoline container.
- B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
- C. Open doors if engine is run in garage -- exhaust fumes are dangerous. Do not run engine indoors.

Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.

Allow engine to cool before storing in any enclosure.

To reduce fire hazard keep engine free of grass, leaves or excessive grease.

#### ATTACHMENTS

Disengage power to attachments and stop engine before leaving operator position.

Disengage power to attachment (s) and stop engine before making any repairs or adjustments.

Disengage power to attachments when transporting or not in use.

When using any attachments never direct discharge of material toward bystanders or allow anyone near vehicle while in operation.

Keep vehicle and attachments in good operating condition and keep safety devices in place. Use guards as instructed in owner's manual.

Vehicle and attachments should be stopped and inspected for damage after striking a foreign object and the damage should be repaired before restarting and operating the equipment.

When using vehicle with mower:

- (1) Mow only in daylight or in good artificial light.
- (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
- (3) Shut engine off when removing grass catcher and/or unclogging chutes.
- (4) Check blade mounting bolts for proper tightness at frequent intervals.

Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

### IMPORTANT

## CAUTION

1. Keep all shields in place.
2. Before leaving operator's position:
  - Shift transmission to neutral.
  - Set parking brake.
  - Disengage attachment clutch.
  - Shut off engine.
  - Remove ignition key.
3. Wait for all movement to stop before servicing machine.
4. Keep people and pets a safe distance away from machine.

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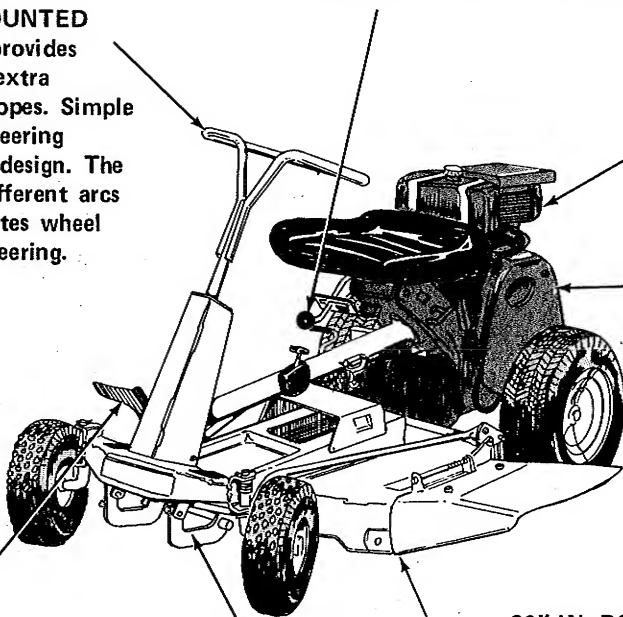
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**CONVENIENT HAND-OPERATED CONTROLS.** Gear shift, throttle and mower clutch lever are all located near the seated operator. The seat helps shield the levers from snagging on bushes and branches.

**BRIGGS & STRATTON 8 H.P. KOOL-BORE ENGINE** with compression-relieved Easy-Spin starting. Horizontal crankshaft plane and upward angled side pull recoil starter designed for easy, natural motion.

**LARGE, CENTER MOUNTED STEERING WHEEL,** provides effective leverage and extra personal support on slopes. Simple draglink 1-to-1 ratio steering features true geometry design. The front wheels follow different arcs when turning; eliminates wheel marks and improves steering.

**TRANSMISSION.** All spur gear, fully enclosed and lubricated. Two speeds forward, one reverse. Differential allows each rear wheel to rotate at required speeds when turning.



**COMBINED CLUTCH AND BRAKE PEDAL** with heel support. Start, turn and stop with smooth roller action and no wheel skid. Improved Touch-O-Matic clutch converts any transmission speed from zero to maximum for precise "inching" and turning speed. No need to "downshift" on turns.

**30" IN. ROTARY MOWER.** Front axle mounted to automatically follow ground contour. 3-1/2" dia. rubber rollers at the rear and two-pin attachment for easy removal. Cushioning belt drive absorbs shocks. Sealed bearings on mower spindles.

**CHASSIS.** Short wheel base, large low-pressure tires, footrests on front axle. Open frame for easy dismounting. Low center of gravity. Oversized, reinforced frame pivot joint between front and rear wheels.

## SIMPLICITY'S NEW EQUIPMENT WARRANTY

The Company warrants Simplicity products to be free from defects in material and workmanship, except the Company makes no warranty, express or implied, with respect to tires, engines, generators and voltage regulators, which are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year (45 days for equipment used for rental, municipal or commercial purposes) under normal use, from date of purchase, will be replaced without charge, provided such part is returned to the factory, (if requested), and is found to be defective upon examination at the factory. This warranty does not apply to any Simplicity products altered outside of the Simplicity factory. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE. The Company's obligation under its warranty is strictly and exclusively limited to the replacement of such parts, and in no event shall the Company be liable for any other damages, whether direct, immediate, incidental, special, or consequential. Simplicity Manufacturing Company, Inc., reserves the right to modify or change specifications without prior notification. There are no warranties which extend beyond the description of any Simplicity product.

### ENGINE

Make	Briggs & Stratton
Model No. 190402	Type 0809-01
Horsepower	8
Cycles	4
Cylinders	1
Crankshaft	Horizontal
Starter	Manual Rewind -- Electric Starter Kit 990912
Ignition	High Tension Magneto
Governor	Adjustable Mechanical Tyoe
Air Cleaner	Sealed Housing, Reusable Oiled Foam Element
Choke	Chokematic
Crankcase	Lubrication: Splash System Oil Capacity: 2-3/4 Pints
Fuel Capacity	4 Quarts
Muffler	Quiet, Rear Discharge

### TRANSMISSION

Type	All Gear, Fully Enclosed and Lubricated
Speeds	Two Forward, One Reverse
Speed Range	Low: 2.3 High: 3.0 Reverse: 2.3
Differential	Type: All Gear, Fully Enclosed and Lubricated

### ROTARY MOWER

Mounting	Suspended from and Tilts with Front Axle
Width of Cut	30"
Height of Cut	1-1/2 Inches to 3-1/2 Inches
Drive	Cushioning V-Belt with Lever Control
Adjustment	Single Knob Controls Front and Rear Height
Spindles	Sealed Rolling Contact Bearing Mounted
Rear Support	Three Rollers, 2 at 2", 1 at 3-15/16" Wide
Housing	Drawn Steel

## CHASSIS

Frame	Heavy Gauge Steel with Main Pivot Below Seat
Rear Wheels	Pneumatic, Inflation Pressure: 10 Lbs. Size: 16.00/6.50 x 8
Front Wheels	Pneumatic, Inflation Pressure: 22 to 25 lbs. Size: 4.10/3.50 x 4 Bearings: Powdered Iron, with Grease Fittings
Seat	Type: Bucket, Rubber Mounted Cover: Leatherette on Bonded Foam
Turning Radius	Inside Rear Tire: 23.5 Inches Inside Mower Cut, Model 315: 30 Inches
Stability	With Wheel Weights: 30% Uphill and Sidehill Slope Without Wheel Weights: 20% Uphill and Sidehill Slope

## CONTROLS

Steering	Control: Steering Wheel Type System: 1 to 1 Ratio, Lever and Drag Link
Clutch and Brake Pedal	Location: Right Front Clutch: Soft Action, Touch-O-Matic, V-Belt Brake: Foot Operated Band Type
Parking Brake	Location: Below Gear Selector on Shaft
Gear Selector	Location: Front Center of Seat
Mower Clutch	Location: Left Side of Seat
Throttle Control	Location: Front Center on Shaft
Starter	Location: Right Side of Engine

## DIMENSIONS

Overall Length	61.5" Inches
Overall Width	With 30" Inch Mower: 40.25 Inches
Overall Height	To Top of Steering Wheel: 39.0 Inches To Top of Engine Cover: 29-1/4 Inches
Wheel Base	45.00 Inches
Shipping Weight	With 30 Inch Mower: 287 Lbs.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

## MOW SAFELY

In addition to the basic safety rules listed on the inside front cover, follow these mowing safety tips.

1. Make sure the lawn is clear of sticks, stones, wire and other debris which could be thrown by the mower blade.
2. Make sure the transmission is set in **NEUTRAL** and the mower drive is **DISENGAGED** before starting the engine. (See Controls).
3. Before mowing the first time, check the mower height setting. Because of variations in hitch positions, the cutting height must be properly adjusted. (See Cutting Height under Adjustments.)
4. Whenever you stop mowing, either to remove obstacles or make adjustments, stop and think before you dismount. **DISENGAGE THE MOWER DRIVE, SHIFT TO NEUTRAL THEN SHUT OFF THE ENGINE.** If you are on a driveway or other smooth, flat spot, the mower blades will continue spinning for a short time. To dismount, place your feet well away from the mower housing.

## STEERING WHEEL

The steering shaft has two holes for mounting the steering wheel in either forward or rearward position (Figure 1). Practice and experience will determine which of these two positions is best suited for you. Do not adjust wheel height.

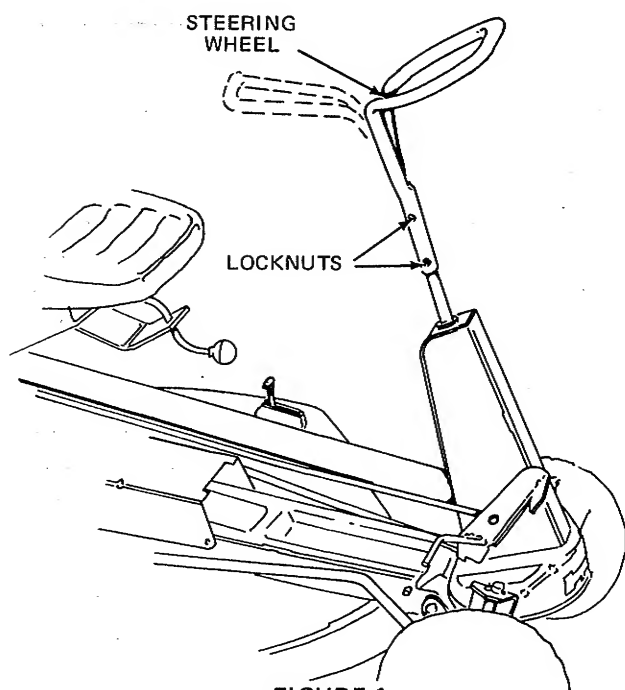


FIGURE 1

## CONTROLS (Figure 2)

1. **CLUTCH AND BRAKE FOOT PEDAL:** Push the pedal **DOWN** to declutch and apply brake simultaneously. Always depress the pedal to stop the unit before shifting gears.
2. **THROTTLE LEVER:** Move level all the way **REARWARD** to engage the choke and to start, **REARWARD** for slower running, and completely **FORWARD** to stop engine.
3. **MOWER HEIGHT ADJUSTER:** The height adjusting handle raises and lowers the mower at both front and rear. Turn the handle **CLOCKWISE** to raise, **COUNTERCLOCKWISE** to lower.
4. **GEAR SHIFT LEVER:** Depress the foot lever and place the shift lever in the desired notch on the shift plate. The lever is easy to move if used properly. It slides back and forth, not up and down. Apply rearward (not downward) pressure to shift. **DO NOT** try to shift gears unless the foot pedal is depressed.
5. **MOWER CLUTCH LEVER:** Pull the lever **UP** to engage the mower drive, push **DOWN** to disengage. The engine should be running at 3/4 to full power when the mower drive is engaged.
6. **PARKING BRAKE LEVER:** Pull lever **UP** to engage parking brake, push **DOWN** to disengage.

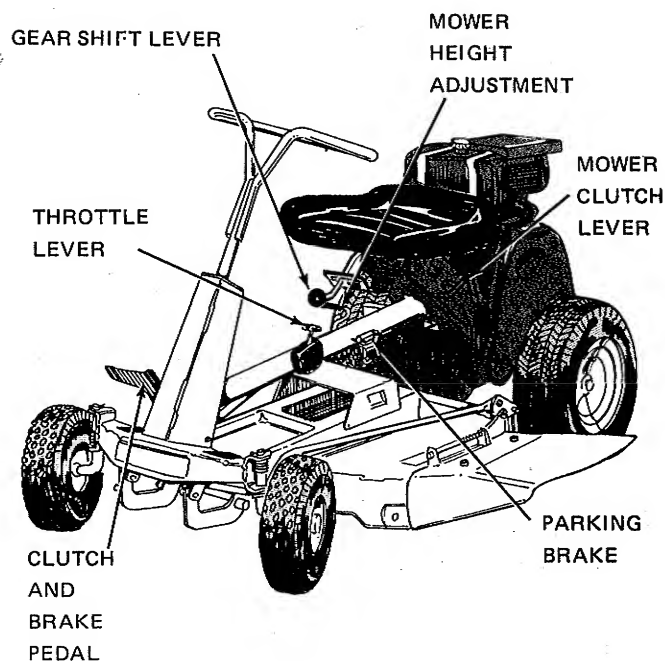


FIGURE 2

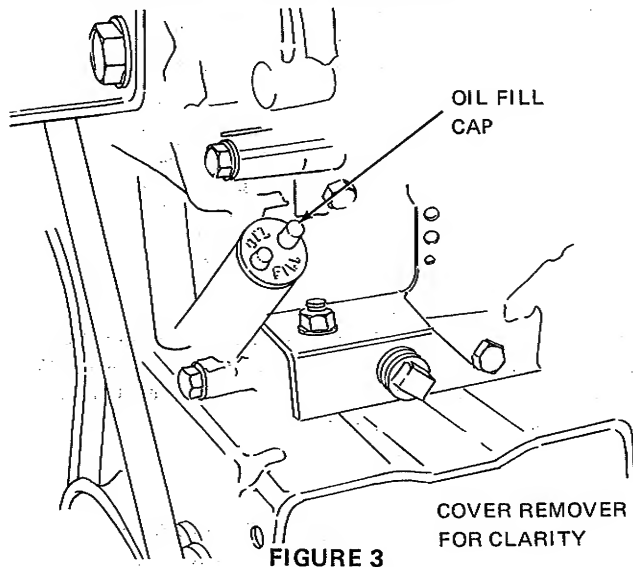
## BEFORE STARTING

Before attempting to start the engine, read the engine owner's manual thoroughly. Be sure to have on hand sufficient quantities of clean, fresh **REGULAR** grade gasoline and 10W-30 grade MS motor oil.

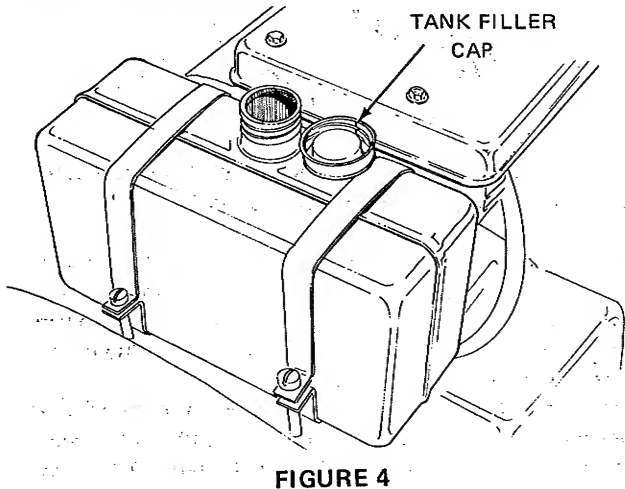
### NOTE

Pay attention to "Service Designation" stamped on the top of each can of oil you intend using in your engine. Use oil labeled MS (Motor Severe), but do not use ML or MM labels as they do not contain sufficient additives for proper protection. Labels DL and DM may be used also; however, **DO NOT** use a DS label oil as it is too severe in detergent quality for this application. Be sure to use a premium grade oil.

1. Remove the engine crankcase filler plug by turning counterclockwise. (Figure 3) The plug is located at the rear left side of the engine. Fill the crankcase with 10W-30 grade MS oil until level with the top of the filler neck. Wipe up any spilled oil. Reinstall the filler cap securely. **CHECK THE OIL LEVEL EVERY TIME FUEL IS ADDED.**



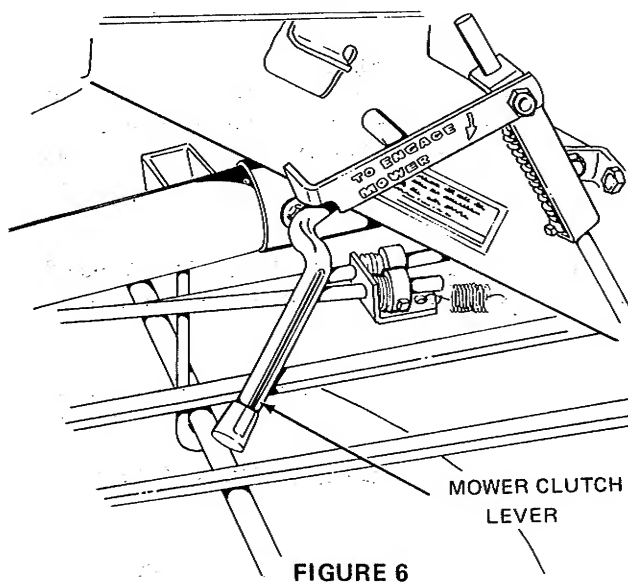
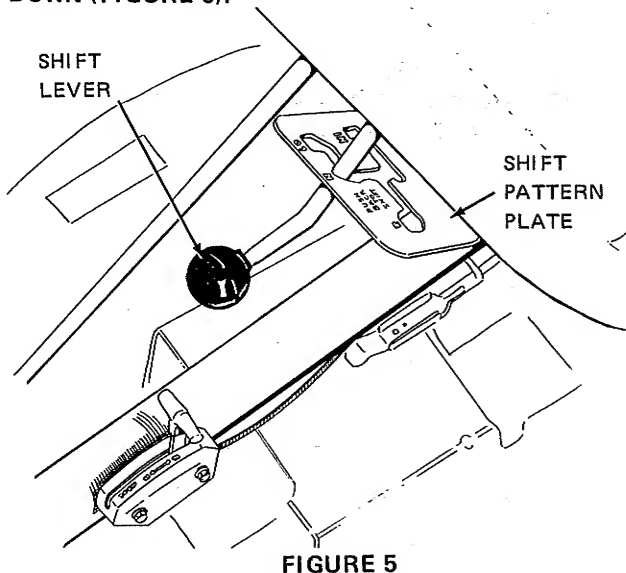
2. Remove the fuel tank filler cap (Figure 4) and fill the tank completely with clean, fresh **REGULAR** grade gasoline. Use a can with flexible spout.



**CAUTION: GASOLINE IS HIGHLY INFLAMMABLE. AVOID OVERFILLING AND WIPE UP ANY SPILLED FUEL. ALLOW NO OPEN FLAME, SMOKING OR MATCHES NEAR THE AREA WHEN REFUELING.**

Replace the filler cap securely. Store gasoline in small quantities - prolonged storage produces harmful gum and deposits. If it is necessary to store gasoline for prolonged periods, add STA-BIL brand gasoline stabilizer, available at your Simplicity dealer. (See Off-Season Storage.)

**CAUTION: PLACE TRANSMISSION SHIFT LEVER IN NEUTRAL POSITION (FIGURE 5) AND DISENGAGE THE MOWER DRIVE BY MOVING THE CLUTCH LEVER DOWN (FIGURE 6).**



3. Check the tire pressure. Inflate front tires to 22 to 25 PSI. Inflate rear tires to 10 PSI.
4. The Grabber is lubricated at the factory, but before operating all grease fittings and other lubrication points should be serviced. See Maintenance for instructions.

## MANUAL STARTING

1. Using key, turn ignition switch, under right side of seat, to **ON** position.
2. Move throttle lever all the way rearward to close the choke (Figure 7). Always move to this position to start, whether engine is warm or cold. Make sure shift lever is in neutral (Figure 5) and mower disengaged (Figure 6). Shift lever must be completely up into neutral (N) notch of shift pattern plate or engine will not start.

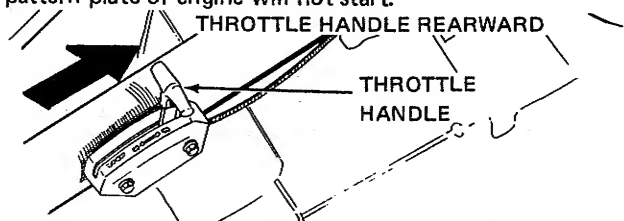


FIGURE 7

3. Grasp recoil starter handle firmly in your right hand and pull sharply straight out (Figure 8).

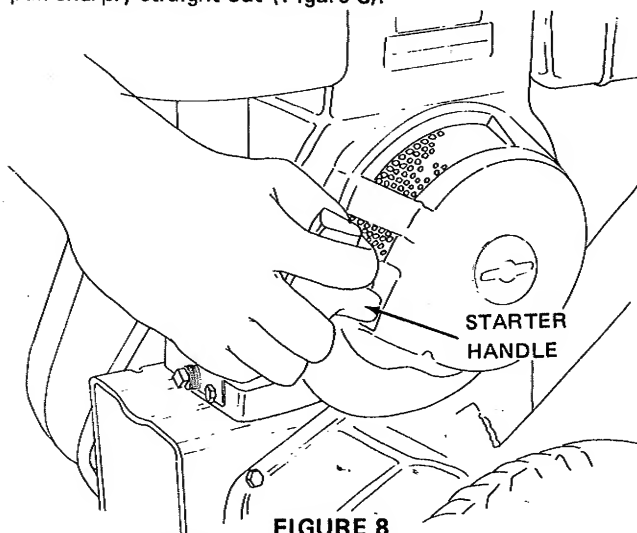


FIGURE 8

4. If engine fails to start after four or five pulls, it may be flooded. Move throttle lever forward to slow position (do not push completely forward or engine will stop) and pull starter handle several times to clear excess fuel from carburetor.

**WARNING: DO NOT RELEASE STARTER HANDLE WITH ROPE EXTENDED; RETURN IT TO COVER BY HAND.**

5. After engine starts, move throttle lever to a 3/4 to full position. Mowing is recommended at these throttle settings.

## ELECTRIC STARTING WHEN USING STARTER KIT

1. See Step 2, manual starting.
2. Using key, turn ignition switch, under right side of seat, to **ON** position and hold in that position for several seconds then release.
3. If engine fails to start after four or five attempts, it may be flooded. Move throttle lever forward to slow position (do not push completely forward or engine will stop) and turn key again to **ON** position, holding it for several seconds.

4. After engine starts, move throttle lever to a 3/4 to full position. Mowing is recommended at these settings.

## BEFORE OPERATING

Before beginning to mow, you should familiarize yourself fully with the sequence of operation. Proceed as follows:

1. With engine running, the shift lever in neutral, and the mower clutch lever disengaged as shown in **STARTING**, seat yourself on the mower and move the throttle lever rearward to give full engine speed. (Figure 9).
2. Depress the clutch-brake pedal. (Figure 9). This disengages the transmission for shifting and applies the brake at the same time.

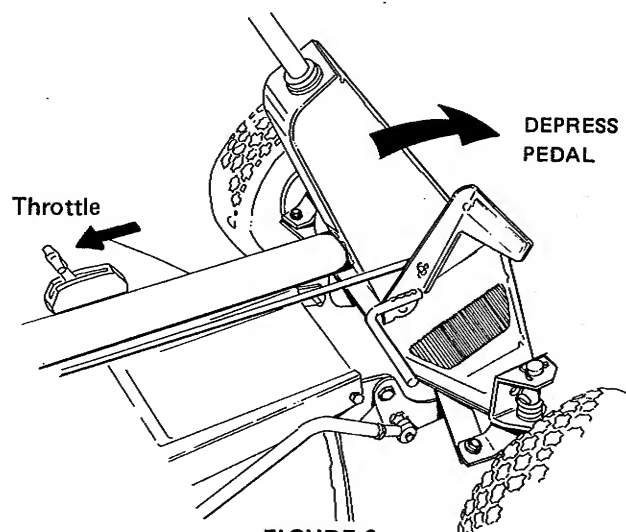
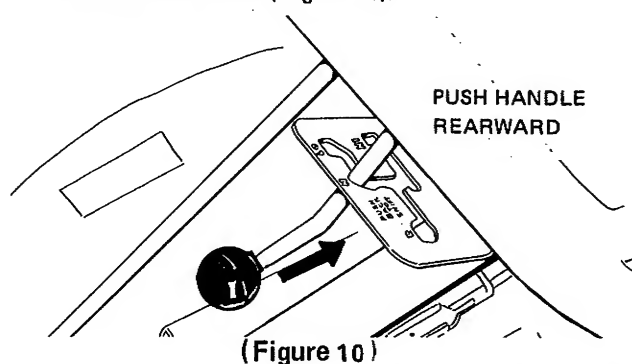


FIGURE 9

3. Have the front wheels centered straight ahead and hold the steering wheel with one hand. Move the shift lever to **HI** or **LO** as desired. Remember to push rearward **NOT** downward on the shift lever. (Figure 10).



(Figure 10)

**CAUTION: CHANGE GEARS ONLY WHEN MACHINE IS MOTIONLESS AND FOOT PEDAL IS DEPRESSED.**

4. Gradually release the foot pedal to start moving. Drive on level ground until you get the feel of the machine. To stop forward motion quickly, depress the pedal. Try slower throttle settings, shift gears, practice steering and handling until you are ready to start mowing.
5. Before mowing, the cutting height adjustment of the mower must be checked. Move the machine onto a flat surface such as a driveway and check the cutting height settings as outlined under Adjustments.



## OPERATION

1. Engage the mower blade drive by pulling the clutch control lever **UP**. (Figure 11) The engine must be running at 3/4 to full throttle speed.

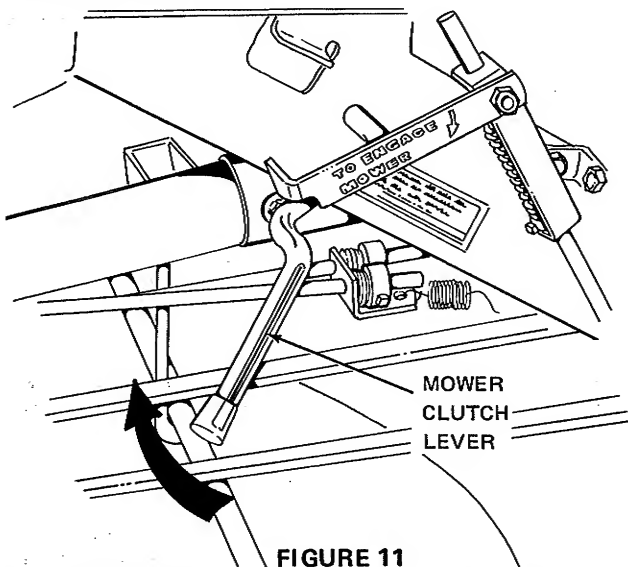


FIGURE 11

2. The height adjusting handle at the rear right side of the mower housing raises and lowers the mower at both front and rear. Twist the handle **CLOCKWISE** to **RAISE** the blade and **COUNTERCLOCKWISE** to **LOWER** it. (Figure 12)

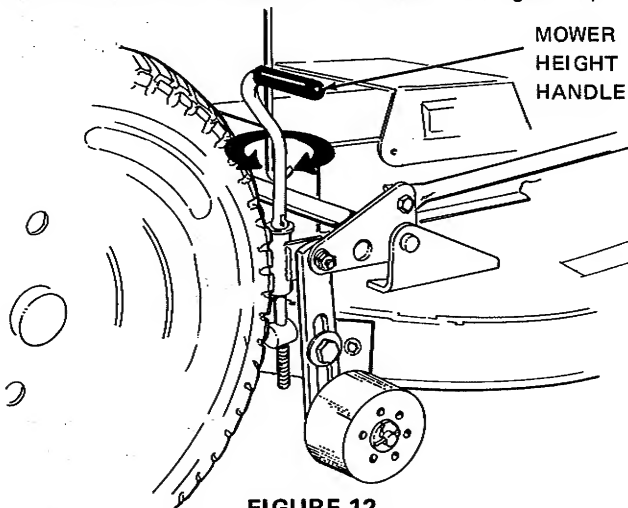


FIGURE 12

3. Most lawns should be mowed to keep the height of the grass approximately 2 in. high. Under dry conditions, it should be allowed to grow higher. To keep a green lawn, **NEVER** mow more than one-third off the height of the grass or a maximum of 1 inch in one mowing. For extremely tall grass, set the cutting height at **MAXIMUM** for the first mowing, then reset to the desired height and mow again.
4. The 30 in. mower is designed to cut grass at a height of 1-1/2 to 3-3/4". Best results are obtained by cutting often and not too short. Allow the grass to grow to 3 in., then cut off only the top 1 inch.

## MOWING PATTERN

For the first use of the mower, choose a smooth, level area. Cut long, straight strips overlapping slightly. After getting used to the operation, proceed to inclines or rough ground.

Guide the right side of the mower along trees, posts or other obstacles and follow the contour as closely as possible.

**DISPERSAL:** If the clippings are to remain on the lawn, mow with the discharge side toward the area already cut. If the clippings will be raked up later and the grass is at a normal height of 3 inches or less, it is practical to disperse the clippings into the un-cut area. There they will be concentrated in the center of the lawn for minimum raking.

**WET, THICK OR HEAVY GRASS:** Start at the outer edge of the area and mow counterclockwise so that clippings are always deposited on cut grass. Less engine power is required and a more even cut free of streaks will result.

**HEIGHT SETTING:** On thick or springy grass, do not set the cutting height too low. The wheels may sink into the lawn, resulting in too short a cut. (See Adjustments).

For best appearance, new grass should be cut in the afternoon or evening when it is free of moisture.

Change patterns occasionally to eliminate matting, graining and a corrugated appearance. See diagrams below. (Figure 13).

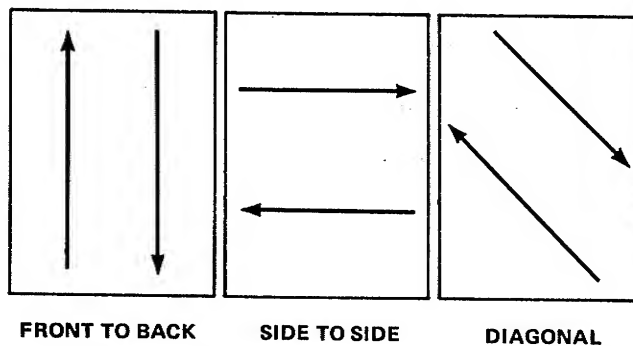


FIGURE 13

**CAUTION: IF YOU FEEL SEVERE VIBRATION WHEN MOWING, THE BLADE IS UNBALANCED. HAVE IT BALANCED BEFORE FURTHER USE. (See Maintenance).**

## STOPPING

To stop engine, move throttle lever completely forward and turn ignition switch key to **OFF** position.

## TROUBLE SHOOTING

For instructions to overcome the following problems, see Adjustments and Maintenance.

**IF ENGINE FAILS TO START**, check the following:

1. Throttle lever must be all the way rearward to the choke position.
2. Shift lever must be in **NEUTRAL** position.
3. Mower clutch lever must be down in **DISENGAGED** position.
4. Spark plug cable must be securely connected.

**IF BELT SLIPPAGE OCCURS**, check the following:

1. Belts may be stretched or excessively worn.
2. Pulleys may be greasy or oily.
3. Insufficient belt tension due to a broken or worn tension spring.
4. If the 30 in. mower drive belt jumps off the pulley when clutch is engaged or disengaged, there may be too much belt slack or the mower idler pulley belt guards are out of position. See page

**IF A BELT BREAKS**, check the following:

1. Look for sharp edges or rough spots on pulleys.
2. Pulleys may be misaligned.
3. Belt tension may be too tight.

**IF HANDLING IS DIFFICULT**, check the following:

1. Controls or drive systems may be out of adjustment. See pages and
2. Tires under-inflated. Inflate front tires to 10 lbs., rear tires to 22 to 25 lbs.
3. Wheels spinning on slopes. Wet grass is very slippery - mow in the late afternoon after it has dried. Wheel weights may be added to provide additional traction. See your Simplicity dealer.

**IF AN UNEVEN CUT RESULTS**, check the following:

1. Mower may not be adjusted properly. See Cutting Height below.
2. Mower housing may be bent or damaged.
3. Blade arbor tube may be bent.
4. Uneven cut from side to side with the 30 in. mower may result from mower not being properly leveled. See page

**IF A POOR OR ROUGH LOOKING CUT RESULTS**, check the following:

1. Blade may need sharpening.
2. Grass may be too high or gone to seed.
3. Drive belt may be slipping.
4. Mower may be out of adjustment.
5. Engine speed may be too low. Run at 3/4 to full throttle.

**IF VIBRATION OCCURS**, check the following:

1. Arbor shaft or tube (or both) may be bent.
2. Blade may be unbalanced.
3. Drive pulley may be bent or misaligned.

For instructions on removal and installation of the mower unit, see Maintenance.

**ADJUSTMENTS**

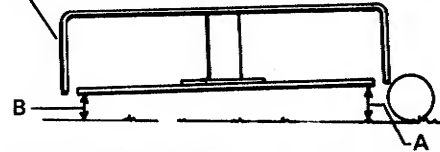
**CUTTING HEIGHT:** Move the mower onto a flat, smooth surface.

**CAUTION:** BE SURE ENGINE IS NOT RUNNING, TRANSMISSION IS IN NEUTRAL AND MOWER DRIVE IS DISENGAGED (CLUTCH LEVER DOWN). BLOCK THE WHEELS, FRONT AND REAR, TO PREVENT ROLLING WHILE WORKING ON THE MOWER BLADE.

**MOWER LEVELING**

1. Rotate the blade by hand so that it is positioned with blade tips pointing to front and rear. Engage mower by pushing mower clutch lever up (Figure 11).
2. Measure the distance from the blade tip to the ground. The dimension at point (A) in the diagram must be 1/16 to 1/8 in. greater than at point (B). (Figure 14)

**FRONT OF MOWER HOUSING**

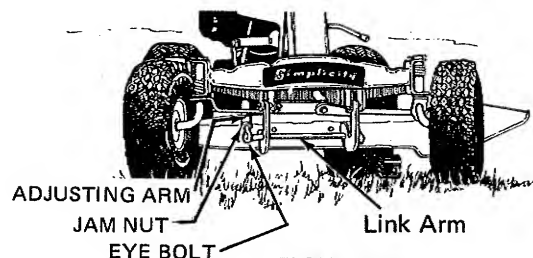


DIMENSION AT POINT "A" TO BE 1/16 to 1/8 IN. GREATER THAN AT POINT "B"

In certain types of grass and under extreme conditions, it may be necessary to adjust the blade so that the front and rear tip are near to level as opposed to the diagram above.

**FIGURE 14**

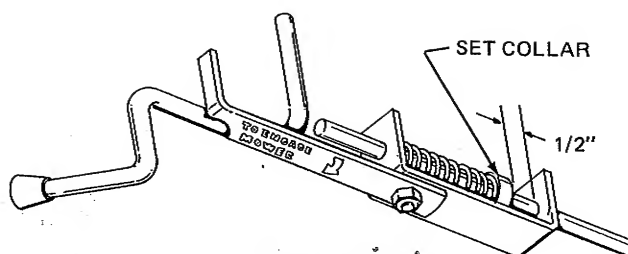
3. To raise or lower the front of mower, remove retaining ring securing eyebolt on link arm (Figure 15). Slide eyebolt from link arm, and loosen jam nut. Turn eyebolt in or out of adjusting arm as required. Slide eyebolt back on link arm and check blade height. Tighten jam nut when proper height is attained. Repeat the adjustment, keeping both adjusting arms equal in effective length until the front of the mower blade is 1/16 to 1/8 in. lower than the rear. When the height adjustment is complete replace the retaining ring.



**FIGURE 15**

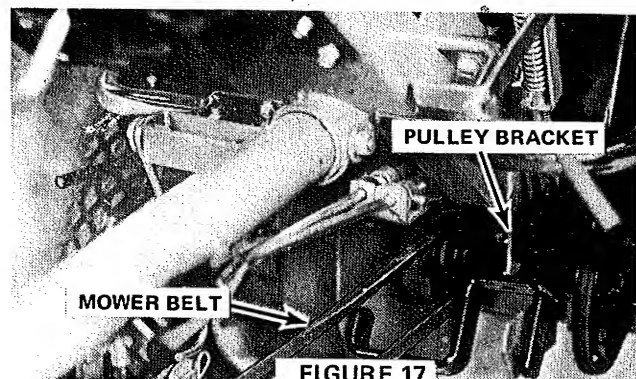
4. Disengage mower by pushing mower clutch lever down and rotate blade 90 degrees. Engage mower again by pushing mower clutch lever up.
5. Measure distance from blade ends at each side to ground. The measurements should be the same within 1/8 inch.
6. Raise or lower the entire mower by twisting the height adjustment handle until the front of the blade is at the cutting height desired.

**MOWER CLUTCH LEVER:** When the mower drive is engaged (lever up), there should be about 1/2 in. clearance between the clutch rod set collar and the lower ear of the rod bracket. (Figure 16). Loosen the set screw in the collar to adjust. **DO NOT** adjust the set collar to completely compress the spring. If the driving belt is stretched so much that adjustment cannot be made with the collar, the mower must be repositioned further forward. To do this, proceed as follows:



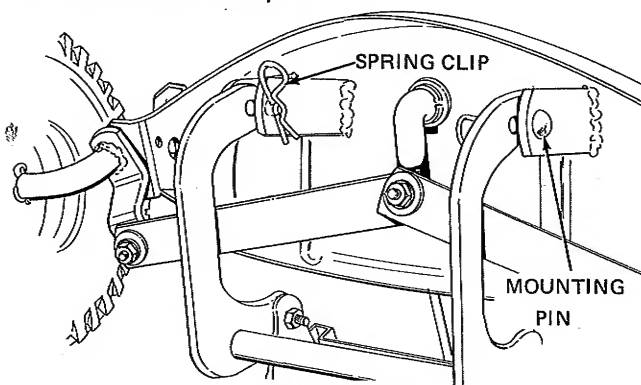
**FIGURE 16**

1. Disengage the clutch lever (push down).
2. Pull the power take-off pulley bracket forward against the spring tension enough to slip the belt off the pulley. (Figure 17).



**FIGURE 17**

3. Remove the front mower hitch mounting pins, (Figure 18) line up the hitch with the forward set of holes on the frame and reinstall the pins.



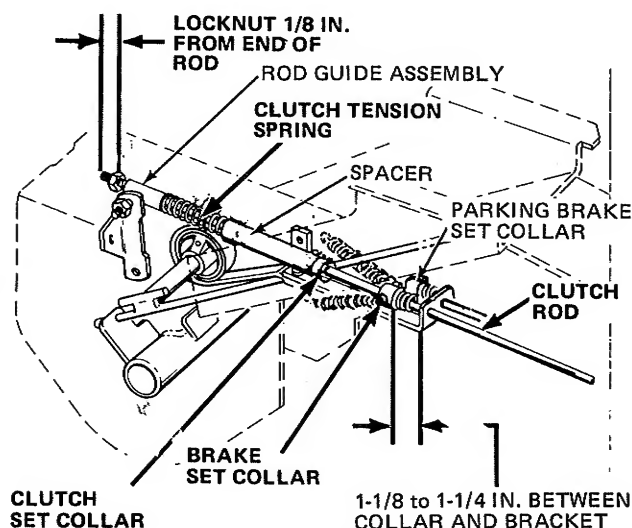
**FIGURE 18**

4. Reinstall the mower drive belt. Be sure the belt is correctly installed and properly seated in the pulley grooves. (See Maintenance - belt replacement). Check the clutch lever operation. The set collar may require readjustment to the 1/2 in. dimension.

#### **CLUTCH AND BRAKE PEDAL (Figure 19)**

1. Place clutch and brake pedal in engaged (up) position.
2. Position brake set collar 1-1/8 to 1-1/4 inches from clutch rod bracket.
3. Position locknut approximately 1/8 inch from end of clutch rod.
4. Adjust clutch set collar against spacer so clutch tension spring has no preload when pedal is in disengaged (down)

position and rod guide assembly is against locknut.  
5. Check brake adjustment by fully depressing pedal assembly and noting brake engagement. If necessary, move brake set collar slightly forward until brakes engage.

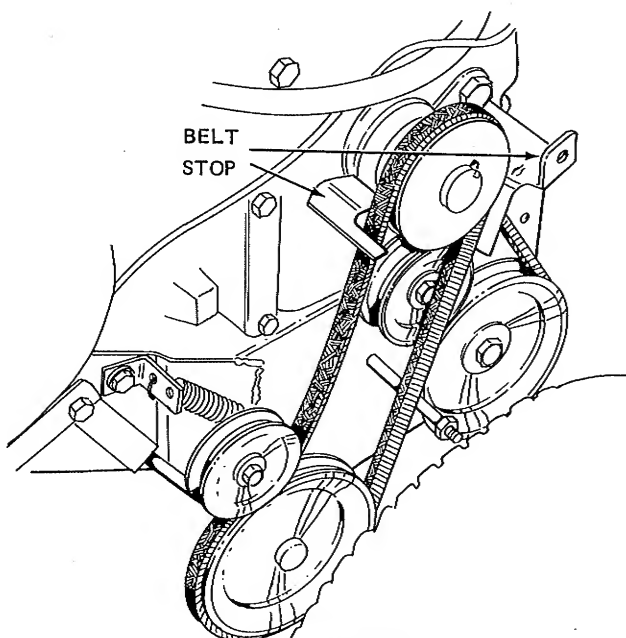


**FIGURE 19**

#### **PARKING BRAKE**

Position parking brake set collar (Figure 19) so brake is fully applied when parking brake is vertical (up) position. Parking brake must lock rear wheels when applied. Move set collar forward to increase parking brake tension.

**BELT STOP:** Set the belt stop fingers by bending so there is about 1/16 in. clearance between stop and belt when the clutch is engaged. The belt stop can be repositioned slightly if necessary by loosening the mounting bolt. (Figure 20).



**FIGURE 20**

## MAINTENANCE

**ENGINE:** Follow the regular procedures outlined in the engine owner's manual. Check the crankcase oil level every time fuel is added or every five operating hours. Change the crankcase oil and service the air cleaner every 20 operating hours.

1. The crankcase should be drained when the engine is warm. Remove the cap from the drain pipe at the rear of the unit to drain. Replace the cap securely and fill the crankcase with clean 10W-30 grade MS motor oil. (Figure 21).

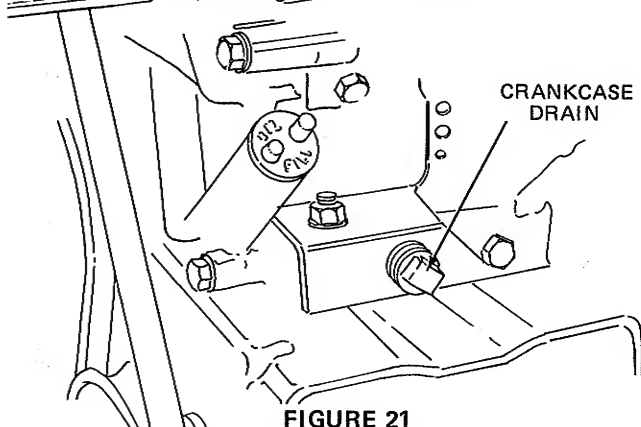


FIGURE 21

2. Turn the screw on the air cleaner cover counterclockwise to loosen. Remove cover. Wash the foam air cleaner element in gasoline, squeezing several times and dry it thoroughly. Saturate it with engine oil, squeeze several times to remove the excess and reinstall.

3. Thoroughly clean all clippings, dirt and chaff from the cooling fins on the cylinder and head to prevent damage from overheating.

4. Clean and re-gap the spark plug every 100 operating hours. Gap to .030 in. **DO NOT** clean the plug by sandblasting - this process often leaves a residue of grit in the plug which can cause engine damage. **BRIGGS AND STRATTON CORP. WILL NOT HONOR THE WARRANTY ON ANY ENGINE DAMAGED BY GRIT FROM A SANDBLASTED SPARK PLUG.** Clean the plug with solvents, scraping or using a wire brush, then re-gap. If a plug cannot be cleaned sufficiently by these methods, it should be discarded.

**WIRING:** Refer to page 13

**GREASE FITTINGS:** There are five grease fittings on the machine, located as shown. (Figures 22 and 23) Grease all fittings every 10 operating hours. Use a Lithium-based, general purpose automotive grease. Remove all dirt, grit and paint from the fittings before application.

Apply light engine oil at both mower rollers and at the points indicated every 10 hours. Do not allow oil to drip onto belts or pulley grooves.

1. Grease both front wheel bearings. Oil wheel spindles and steering linkages.

2. Grease rear axle shaft on left side. Oil mower clutch lever pivot shaft and rod.

3. Grease fitting on top of transmission housing.

4. Grease power take-off pulley shaft. Oil all joints and sleeves of shift linkage and brake-clutch linkage.

5. Grease shift lever where it touches plate. Oil pedal pivot, height adjusting handle, choke plunger, frame main pivot and steering shaft.

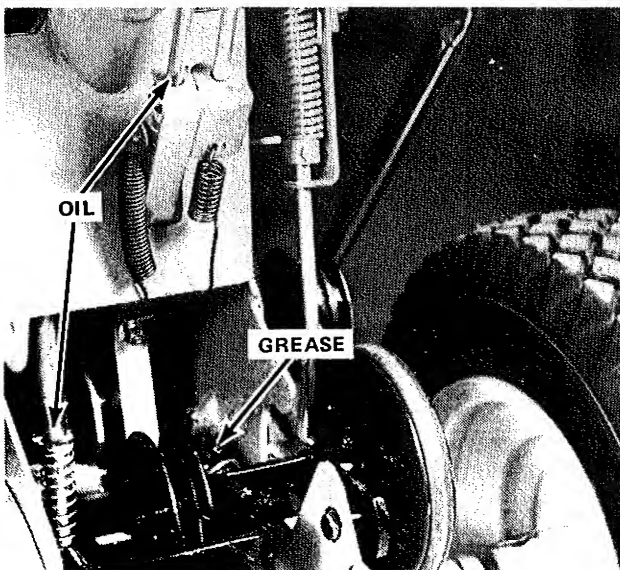
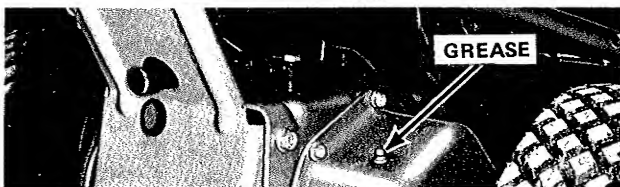
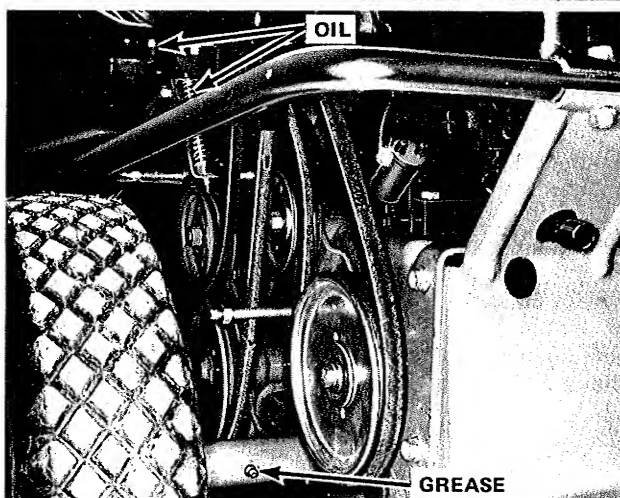
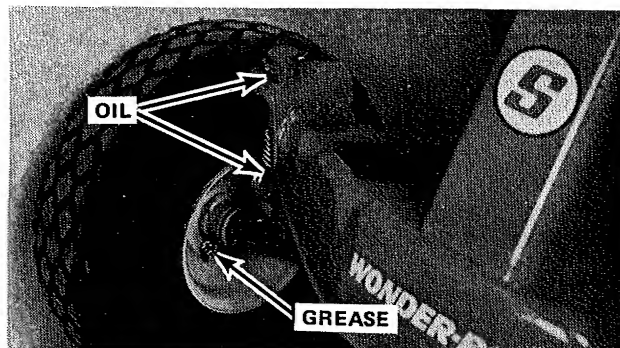
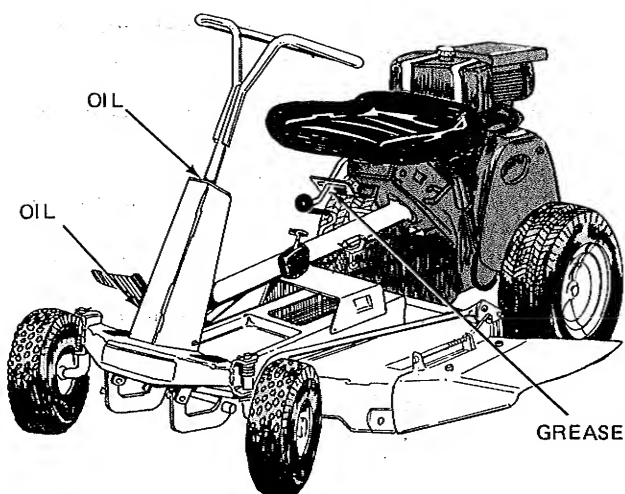


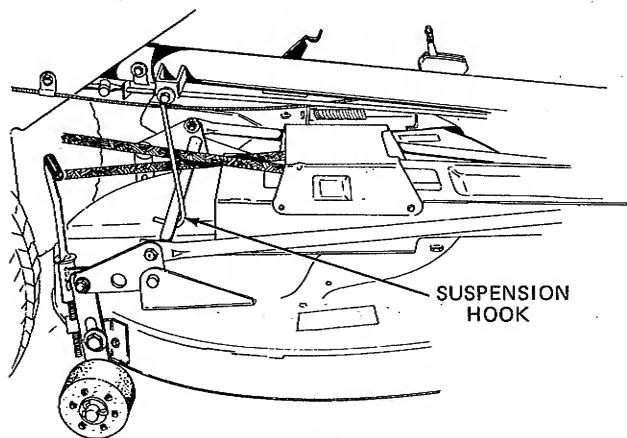
FIGURE 22



**FIGURE 23**

**MOWER:** Remove and install the mower unit as follows:

1. Declutch the mower drive by pushing the clutch lever **DOWN**. Pull the power take-off pulley and shaft assembly forward to allow enough slack to slip the belt off.
2. Disengage the rear mower suspension hook. Pull up on the rear lever crossbar and swing the hook to the rear. (Fig 24)
3. Pull out the front mounting pin spring clip and knock out the pins. (Figure 20) Proceed with care - when the pins are removed, the mower will be free to drop to ground.
4. Turn the front wheels all the way to the right and slide the mower out from under the frame toward the left side.



**FIGURE 24**

It is not recommended that the unit be driven without the mower in its proper place. However, if the unit is to be operated in this fashion, it may be necessary to readjust the PTO safety switch to allow the engine to be started.

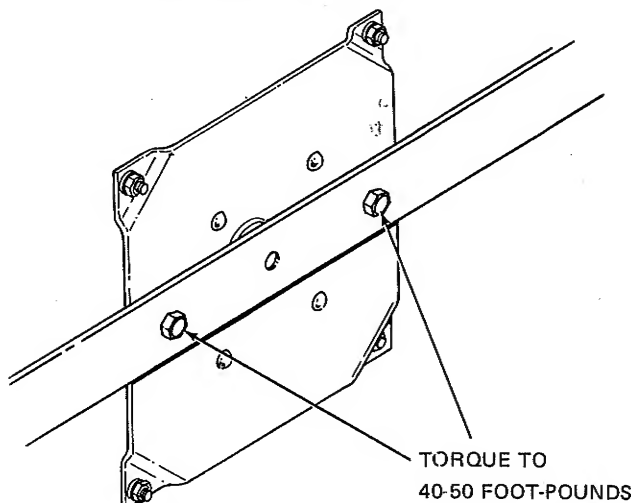
To install the mower unit, attach the front pins first, then the rear hook. Be sure the clutch is disengaged before reinstalling the belt. Check to see the belt is installed correctly and seated properly in the pulleys. (See Belt Replacement).

Clean all grass clippings and material from the housing. Rotate the blade by hand to see that the ends are level with each other. Inspect the blade closely after each mowing.

Sharpen or remove small nicks with a file or stone. Deep nicks in the cutting edge can only be corrected by grinding, which requires that the blade be balanced. For this service, see your Simplicity dealer or proceed as follows:

## BLADE REPLACEMENT

Do not attempt to remove the blade until you have the correct size box, socket, or open end wrenches for the blade mounting bolts. To remove the blade, place a small bolt, punch, or similar object through one of the holes in the mower arbor assembly so you can prevent the nut from turning by holding the blade. (Figure 25)



**FIGURE 25**

**CAUTION: ALWAYS USE SEVERAL LAYERS OF FOLDED CLOTH OR A LEATHER GLOVE OVER THE HAND WHEN HOLDING THE BLADE.**

### NOTE:

*DO NOT* remove the center arbor. Remove the blade from the arbor. To sharpen the blade yourself, clamp it in a vise and use a 10 in. file along the original bevel. File to a razor edge. To balance, insert a knife blade or small rod through center hole to see if blade rests with both ends balancing evenly. File heavy side until even.

**CAUTION: ALWAYS HANDLE THE BLADE WITH CARE TO AVOID INJURY.**

Carefully clean the blade and arbor. Install the new or sharpened blade with the lift tabs toward the top. Install the blade mounting bolts and tighten. Use a cloth or glove to prevent injury to your hand when holding the blade for tightening. Rotate the blade by hand slowly to see that it clears the housing all around and the tips are running true.

**30 INCH MOWER BELT REPLACEMENT:** It is essential that the mower belt be correctly installed. See (Figure 26) Note that the belt must run from the **TOP** of the power take-off pulley to the **RIGHT** side of the mower pulley and from the **LEFT** side of the mower pulley to the **BOTTOM** of the power take-off pulley.



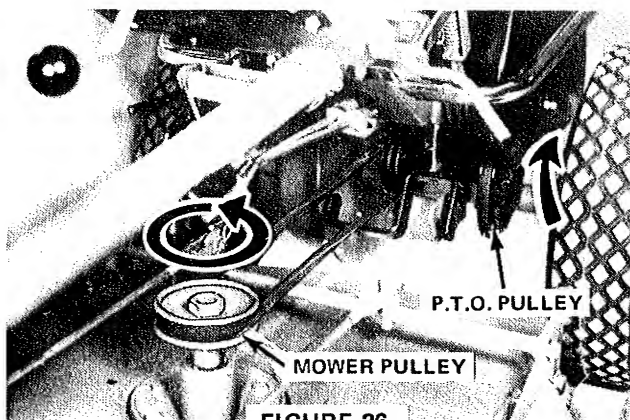


FIGURE 26

If oil has been spilled on any of the belts, use Energine or a similar cleaning fluid on a rag to clean it. An alternate method is to sprinkle a handful of Drizit or Kitty-Litter compound on the belt while running.

If the mower is properly adjusted and in apparent good condition but seems to require excess engine power, it may be that the arbor shaft or sleeve has been damaged by hitting an obstruction. Check the blade drive system. The rotor spindle (or spindles) should turn with 1 to 2 lbs. pull on the blade with the drive belt removed. If the pull pressure exceeds 2 lbs., the unit is robbing power from the engine. Tight bearings, a bent arbor shaft or spindle housing can be repaired or replaced by your Simplicity dealer.

**GENERAL REPAIRS:** To prevent rusting, sand off and paint any parts or areas which become chipped or damaged. Apply a good rust preventative to all bare metal parts. Tighten all fasteners and guards securely.

### OFF-SEASON STORAGE

1. Drain the fuel tank completely by running the engine until it stops. If desired, fuel can be stored in containers or in the tank by using STA-BIL brand gasoline stabilizer, available at your Simplicity dealer. Add a can capful to the fuel in the tank or follow the directions on the can for con-

tainers of other capacity. This additive prevents formation of gum and varnish for up to one year, providing easier starting and a clean fuel system.

2. Drain and refill crankcase while engine is warm (See Maintenance.)
3. Remove spark plug, pour 1 oz. 10W-30 oil into cylinder through plug hole. Crank engine a few times to distribute oil. Reinstall plug.
4. Clean dirt and chaff from cylinder head fins and engine housing.
5. Apply grease to all fittings and light engine oil to all points listed in Maintenance.
6. Block the machine up off the wheels to relieve weight and keep tires off a damp floor. Protect the tires from prolonged exposure to direct sunlight.
7. Store the machine in a dry place indoors.

### STARTING AFTER STORAGE

1. Remove the spark plug and wipe it dry. Crank the engine a few times to blow the excess oil out of the plug hole, then reinstall the plug.
2. Fill the fuel tank completely with fresh **REGULAR** gasoline.
3. Service the air cleaner. (See Maintenance.)
4. Check the crankcase oil level and replenish if necessary. See page
5. Start the engine and let it run slowly. **DO NOT** run at high speed immediately after starting. Run the machine outdoors or in a well-ventilated area.
6. Inflate the tires to operating pressure. (See Specifications.)

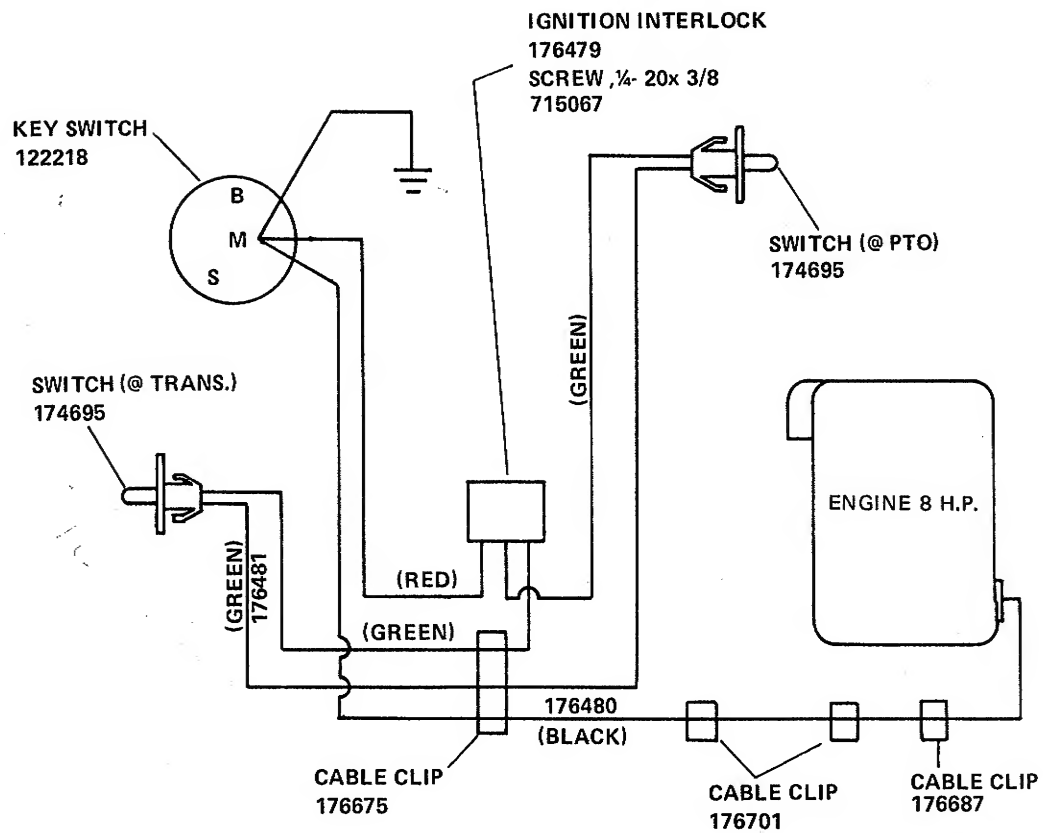
### SERVICE

For replacement parts, engine service, blade sharpening or balancing, see your Simplicity dealer. Be sure that anyone who ever may operate the mower reads the owners manual thoroughly.

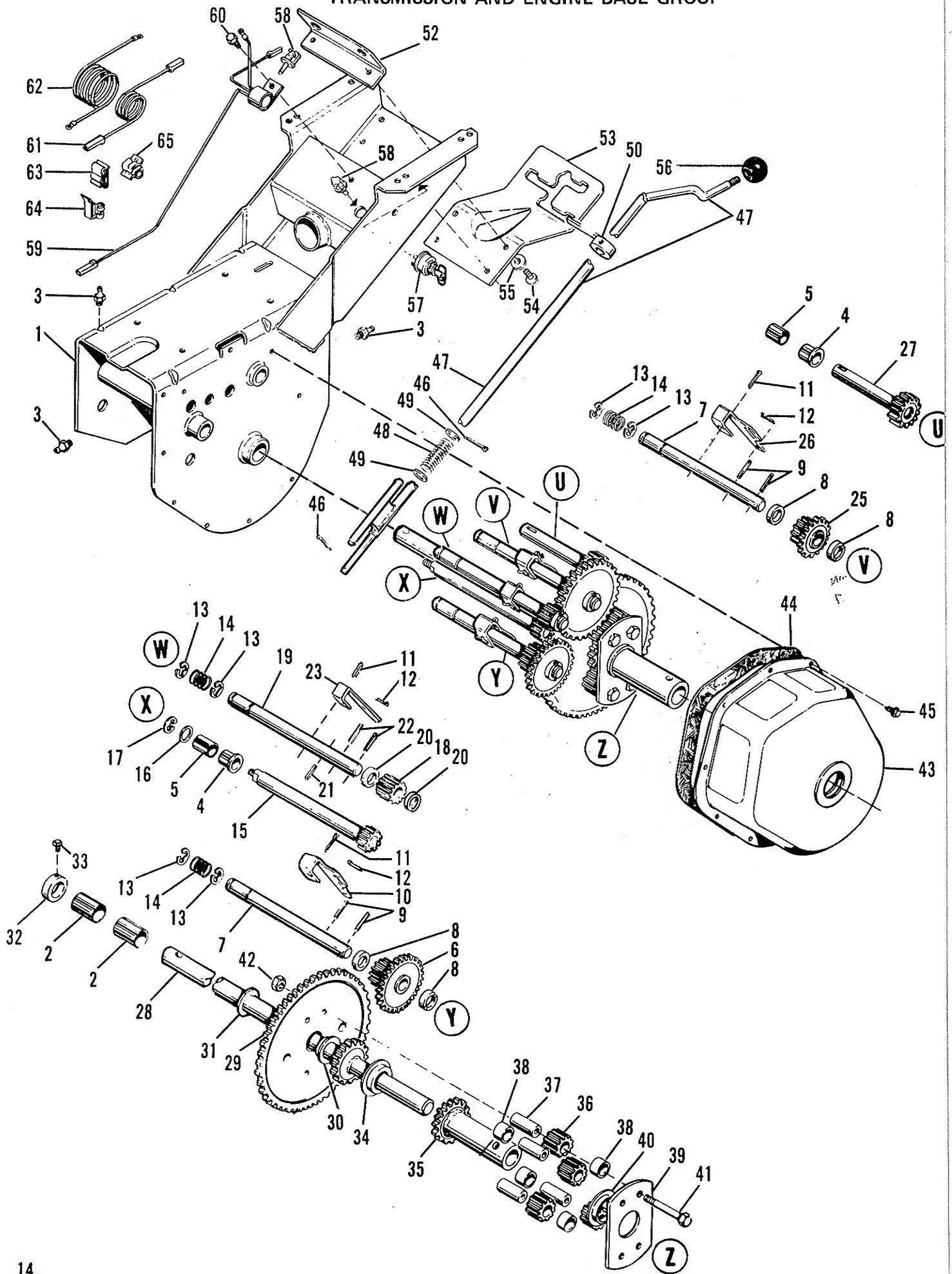
**USE ONLY SIMPLICITY BELTS AND BLADES.**

# PARTS LISTING

## WIRING DIAGRAM



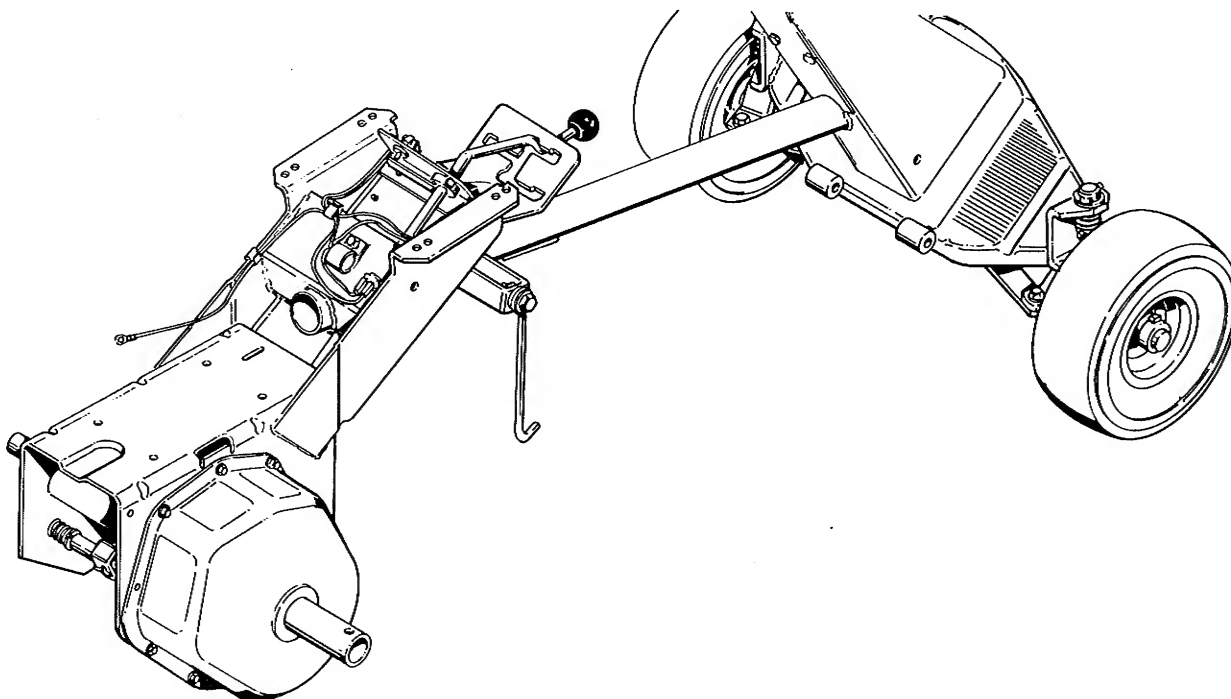
# TRANSMISSION AND ENGINE BASE GROUP





# TRANSMISSION AND ENGINE BASE GROUP

Ref. No.	Part No.	Qty. Req.	Description	Ref. No.	Part No.	Qty. Req.	Description
1	1608955	1	Frame Assembly	36	158579	4	Pinion
2	158337	2	Bushing	37	121083	4	Pinion Spindle
3	727002	3	Grease Fitting	38	121084	4	Pinion Spacer
4	158569	2	Bearing	39	158364	1	Plate
5	156064	2	Bearing	40	158365	1	Bushing
6	158542	1	Gear & Bearing Assembly	41	715043	4	Hex Capscrew, 3/8"-16 x 2-1/4" lg.
7	158541	2	Shaft	42	717510	4	Hex, Nut, Full, Lock, 3/8"-16
8	158561	4	Thrust Collar	43	158521	1	Gear Case Assembly
9	723004	4	Roll Pin, 1/8" x 1" lg.	44	158524	1	Gasket
10	158563	1	Shift Link - Lo	45	715067	9	Taptite Screw, 1/4"-20 x 3/8" lg.
11	722003	3	Cotter Pin, 3/16" x 1-1/4" lg.	46	722006	2	Cotter Pin, 1/8" x 1" lg.
12	722001	2	Cotter Pin, 3/32" x 3/4" lg.	47	176438	1	Shift Rod Assembly
13	1602155	6	"E" Ring	48	158576	1	Spring
14	158578	3	Spring	49	8051056	2	Special Washer
15	106944	1	Gear & Shaft Assembly	50	176419	1	Lever Assembly
16	153079	1	Washer	51	713006	1	Set Screw 5/16-18 x 1/2
17	153124	1	Retaining Ring	52	176421	1	Shift Rod Guide
18	158557	1	Reverse Pinion	53	172923	1	Shift Pattern Plate
19	158534	1	Reverse Shaft	54	715077	4	Taptite Screw, 1/4"-20 x 5/8" lg.
20	158562	2	Thrust Collar	55	719006	4	Plain Washer, 1/4"
21	723014	1	Roll Pin, 5/32" x 1" lg.	56	1601042	1	Ball
22	723016	2	Roll Pin, 1/8" x 3/4" lg.	57	122218	1	Key Switch (Ign.)
23	158564	1	Reverse Shift Link	58	174695	2	Switch
24	722017	1	Cotter Pin, 1/16" x 3/4" lg.	59	176479	1	Ignition Interlock
25	158570	1	Gear & Bearing Assembly	60	715067	1	Taptite Screw, 1/4"-20 x 3/8" lg.
26	158535	1	Shift Link, HI	61	176481	1	Wire
27	158548	1	Brake Shaft Assembly	62	176480	1	Wire
28	158352	1	L.H. Axle Shaft	63	176701	1	Speed Clip, Cable
29	158530	1	Drive Gear	64	176687	1	Speed Clip, Cable
30	158356	1	Bushing	65	176675	1	Speed Clip, Cable
31	118252	1	Washer	66	717033	1	Hex Nut, Full, No. 8
32	158537	1	Set Collar	67	721510	1	Shakeproof Lock Washer No. 8
33	713002	1	Set Screw, 5/16"-18 x 3/8" lg.				
34	158358	1	Thrust Cup				
35	158359	1	R.H. Axle w/Bushing Assy.				

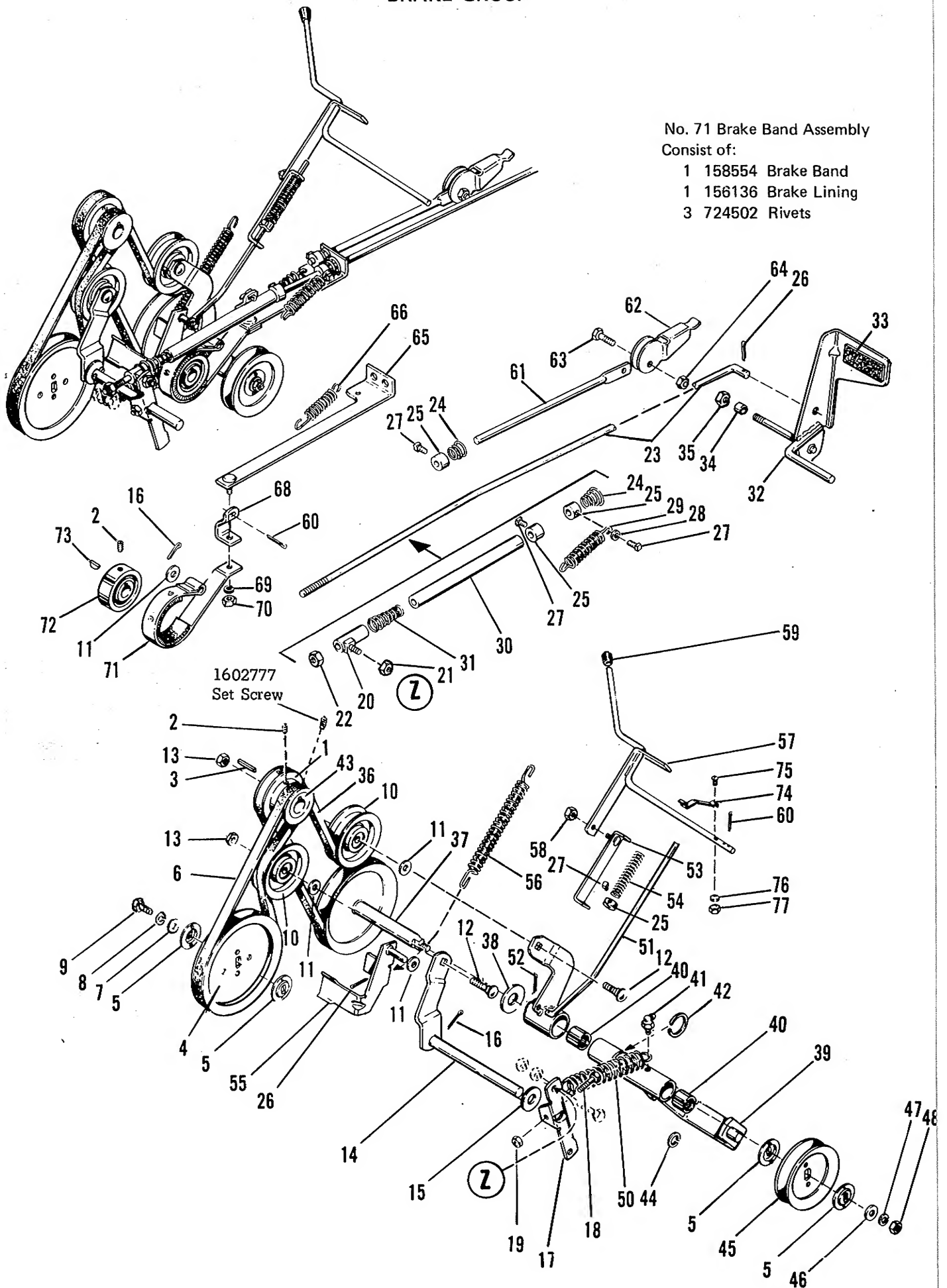


# **BRAKE GROUP**

No. 71 Brake Band Assembly

Consist of:

- 1 158554 Brake Band
- 1 156136 Brake Lining
- 3 724502 Rivets

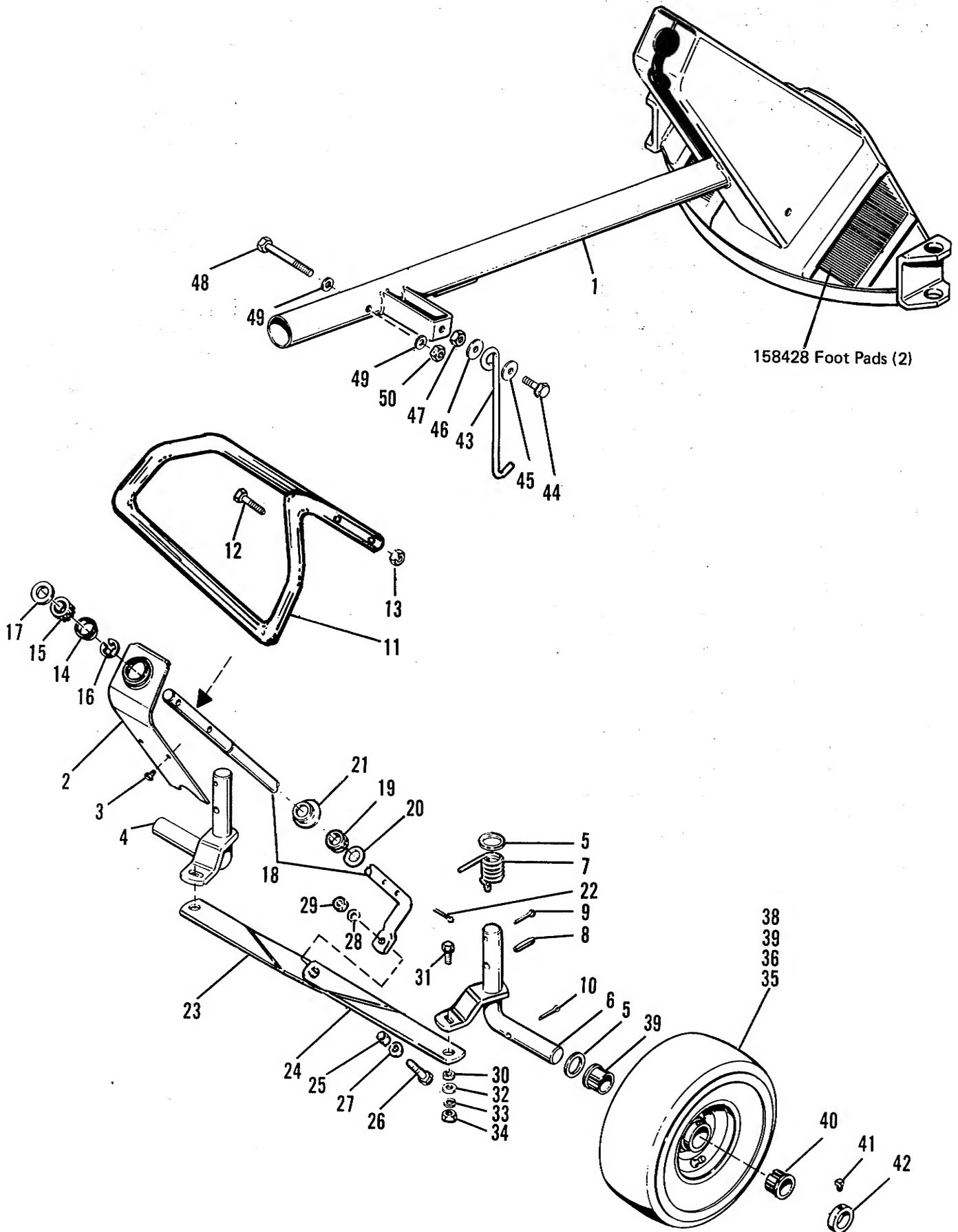


# BRAKE GROUP

Ref. No.	Part No.	Qty. Req.	Description
1	1608950	1	Engine Pulley
2	713503	2	Set Screw, 5/16"-18 x 5/16" lg.
3	8221042	1	Key
4	158377	1	Pulley
5	158378	4	Special Washer
6	1608954	1	V Belt
7	719002	1	Plain Washer, 5/16"
8	720001	1	Lock Washer, 5/16"
9	715073	1	Hex Capscrew, 5/16" - 18 x 7/8" lg.
10	154534	2	Idle Pulley
11	719002	4	Plain Washer, 5/16"
12	703003	2	Carriage Bolt, 3/8"-16 x 1" lg.
13	717510	2	Hex Nut, Full, Lock, 3/8"-16
14	158537	1	Idle Arm Assembly
15	719003	1	Plain Washer, 7/16"
16	722006	2	Cotter Pin, 1/8" x 1" lg.
17	158536	1	Brake and Clutch Lever
18	715051	1	Hex Capscrew, 1/4"-20 x 1" lg.
19	717513	1	Hex Nut, Full, Lock, 1/4"-20
20	156303	1	Rod Guide Assembly
21	717511	2	Hex Nut, Full, Lock, 5/16"-18
22	717525	1	Elastic Stop Nut, 5/16"-18
23	1608951	1	Clutch Rod
24	153010	2	Spring
25	8191022	4	Set Collar
26	722001	2	Cotter Pin, 3/32 x 3/4
27	713001	4	Set Screw, 1/4"-20 x 3/8"
28	719007	1	Plain Washer, 3/16
29	159159	1	Spring
30	172179	1	Spacer
31	157041	1	Spring
32	158604	1	Foot Pedal Assembly
33	162098	1	Pedal Pad
34	1608657	1	Spacer
35	717510	1	Hex Nut, Full, Lock, 3/8"-16
36	1608960	1	V Belt
37	158630	1	Pulley and Shaft Assembly
38	119018	1	Washer

Ref. No.	Part No.	Qty. Req.	Description
39	1609052	1	Housing Assembly
40	108054	2	Needle Bearing
41	727004	1	Grease Fitting
42	158396	1	Retaining Ring
43	1607829	1	Trans. Drive Pulley
44	158399	1	Retaining Ring
45	1609004	1	Pulley
46	719002	1	Plain Washer, 5/16"
47	720002	1	Lock Washer, 3/8"
48	717003	1	Hex Nut, Full, 3/8"-16
49	158461	1	Idle Lever Assembly
50	1608395	1	Spring
51	158609	1	Clutch Rod
52	722001	1	Cotter Pin, 3/32" x 3/4" lg.
53	158406	1	Rod Guide Assembly
54	163103	1	Spring
55	176587	1	P.T.O. Brake Assembly
56	175290	1	Spring
57	176427	1	Control Handle Assembly
58	717511	1	Hex Nut, Full, Lock, 5/16"-18
59	158437	1	Knob
60	722006	2	Cotter Pin, 1/8" x 1" lg.
61	176431	1	Brake Rod
62	176425	1	Lever
63	715018	1	Hex Capscrew, 1/4"-20 x 5/8" lg.
64	717513	1	Hex Nut, Full, Lock, 1/4"-20
65	176429	1	Brake Guide Assembly
66	153121	1	Spring
67	122003	1	Cotter Pin, 3/16" x 1 1/4 lg.
68	158555	1	Brake Lever
69	720003	1	Lock Washer, 1/4"
70	717005	1	Hex Nut, Full, 1/4"-20
71	158552	1	Brake Band Assembly
72	165067	1	Brake Drum
73	725505	1	Key
74	176414	1	Clip Spring
75	710003	1	Mach. Screw, No. 10-32 x 3/4" lg.
76	909055	1	Lock Washer No. 10
77	417415	1	Hex Nut No. 10-32

# STEERING, FRAME, AND FRONT WHEEL GROUP

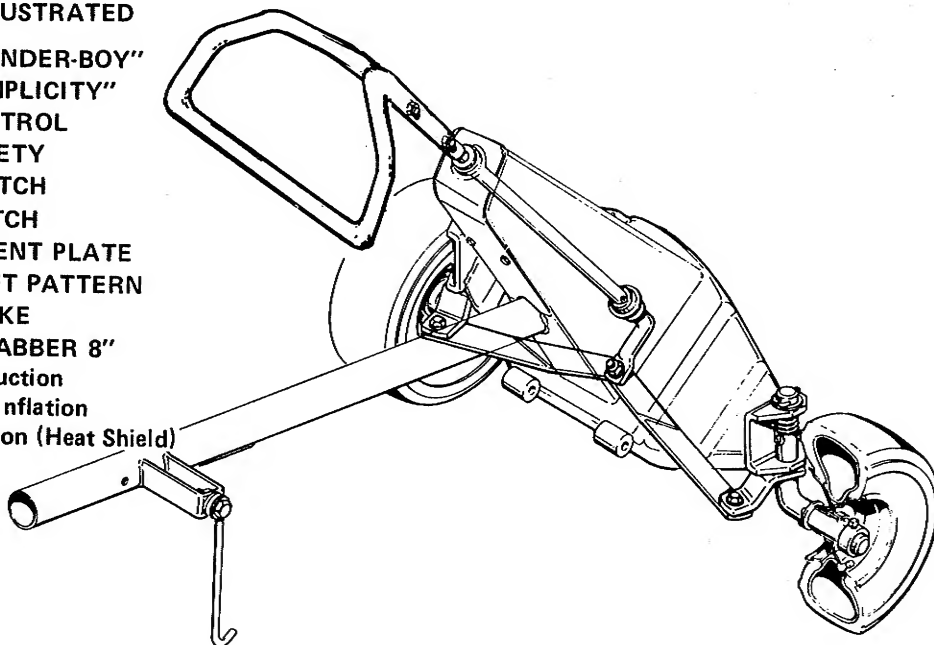


# STEERING, FRAME, AND FRONT WHEEL GROUP

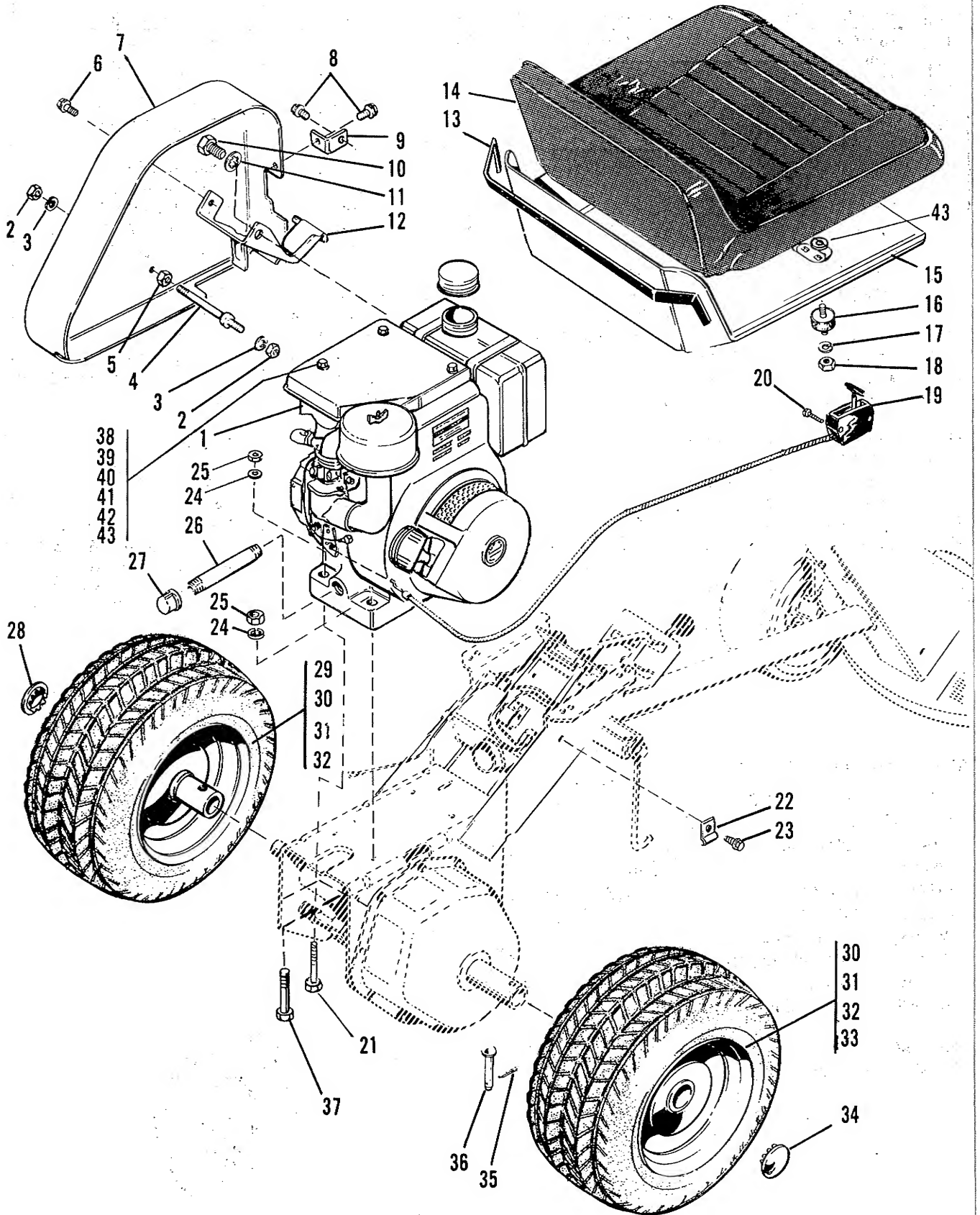
Ref. No.	Part No.	Qty. Req.	Description	Ref. No.	Part No.	Qty. Req.	Description
1	1608952	1	Front Frame & Axle Assy.	26	705009	1	Hex Capscrew, 3/8"-16 x 1-1/2" lg.
2	158215	1	Steering Support Cover	27	719001	1	Plain Washer, 3/8"
3	714004	2	Self Tapping Screw, No. 10 x 3/8" lg.	28	720002	1	Lock Washer, 3/8"
4	158545	1	L. H. Spindle Assembly	29	717003	1	Hex Nut, Full, 3/8"-16
5	101022	4	Washer	30	153081	2	Spacer
6	158547	1	R. H. Spindle Assembly	31	715061	2	Whiz-Lock Screw, 3/8"-16 x 1" lg.
7	121011	2	Spring	32	719001	2	Plain Washer, 3/8"
8	723001	2	Roll Pin, 5/16" x 1-1/4" lg.	33	720002	2	Lock Washer, 3/8"
9	722015	2	Cotter Pin, 5/32" x 1" lg.	34	717003	2	Hex Nut, Full, 3/8"-16
10	722003	2	Cotter Pin, 3/16" x 1-1/4" lg.	35	1608379	2	Front Wheel & Tire Assy.
11	158574	1	Steering Handle	36	1608380	2	Wheel
12	705018	2	Hex Capscrew, 5/16"-18 x 1-1/2" lg.	37	163108	2	Tire
13	717511	2	Hex Nut, Full, Lock, 5/16"-18	38	163109	2	Tube
14	158222	1	Steering Cup	39	163110	4	Bearing
15	157077	1	Steering Bushing	40	163111	4	Bearing Relief
16	157241	1	Retaining Ring	41	713503	2	Set Screw, 5/16"-18 x 5/16" lg.
17	158223	1	Washer	42	8021010	2	Set Collar
18	1608948	1	Steering Shaft	43	176709	1	Hook
19	159026	1	Bushing	44	705005	1	Hex Capscrew, 3/8"-16 x 1" lg.
20	108181	1	Washer	45	719001	1	Plain Washer, 3/8"
21	158012	1	Steering Cup	46	159134	1	Special Washer
22	722014	2	Cotter Pin, 5/32" x 1-1/4" lg.	47	717510	1	Hex Nut, Full, Lock, 3/8"-16
23	158225	1	L. H. Steering Link	48	715104	1	Hex Capscrew, 3/8"-16 x 3-1/4" lg.
24	158226	1	R. H. Steering Link	49	719002	2	Plain Washer, 5/16"
25	158227	1	Spacer	50	717510	1	Hex Nut, Full, Lock, 3/8"-16

## DECAL NOT ILLUSTRATED

- 1609049 "WONDER-BOY"
- 1609048 "SIMPLICITY"
- 176445 CONTROL
- 176448 SAFETY
- 158452 CLUTCH
- 174886 SWITCH
- 121195 PATENT PLATE
- 172989 SHIFT PATTERN
- 172816 BRAKE
- 1609047 "GRABBER 8"
- 174924 Instruction
- 1607336 Tire Inflation
- 1609140 Caution (Heat Shield)



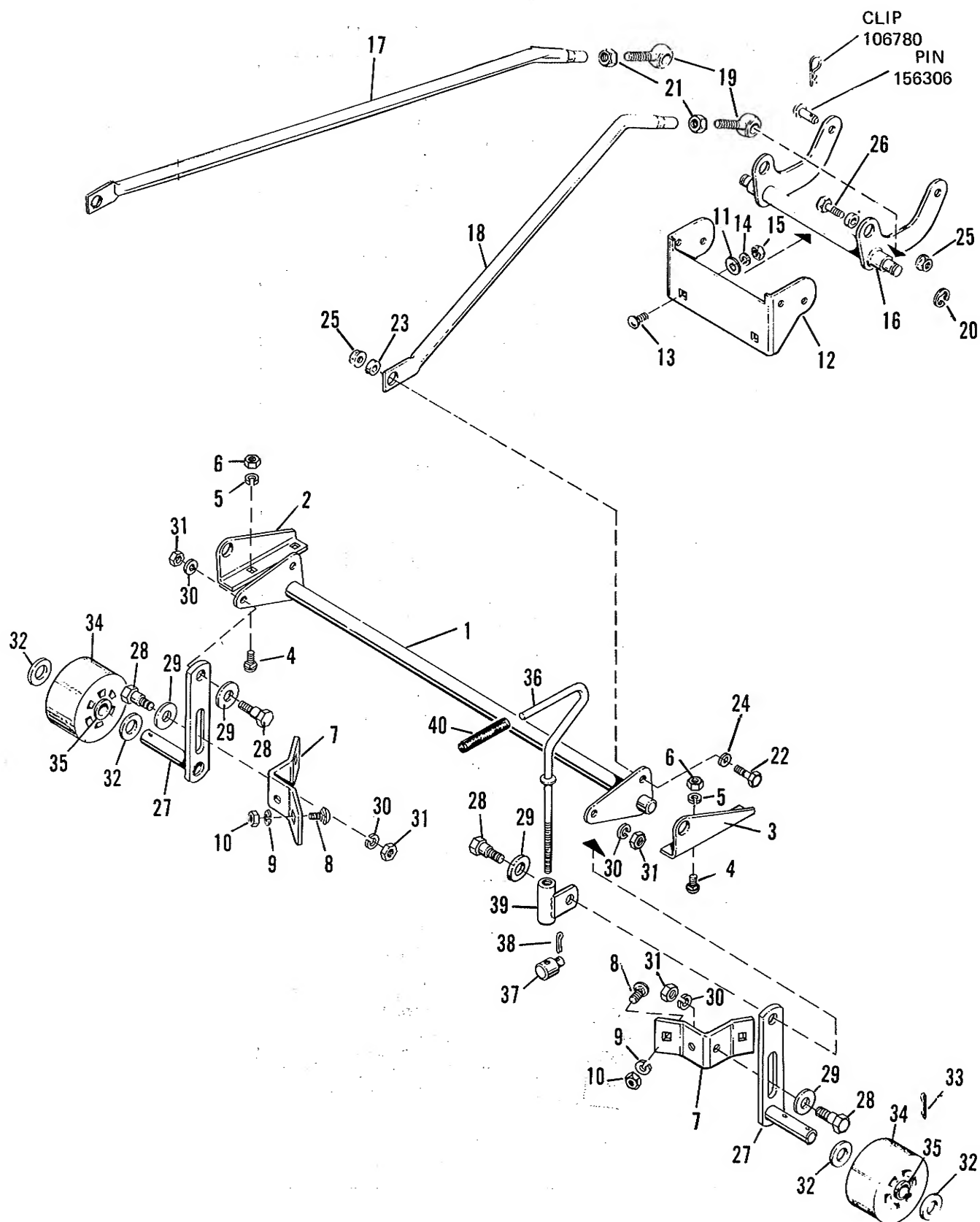
# ENGINE, SEAT, AND REAR WHEEL GROUP



# ENGINE, SEAT, AND REAR WHEEL GROUP

Ref. No.	Part No.	Qty. Req.	Description
1	1608945	1	Engine , 8 H.P.
2	917372	2	Hex Nut, Full, 5/16"-18
3	917356	2	Lock Washer
4	158418	1	Stud
5	923362	1	Hex Nut
6	924856	2	Hex Capscrew
7	1608937	1	Pulley Guard
8	928729	1	Taptite Screw
9	176611		Pulley Guard Bracket
10	924086		Hex Capscrew
11	909589		Lock Washer
12	1608939		Belt Stop
13	159177	7 Yds.	Tape
14	1610429	1	Seat Pad
15	1610362	1	Seat Panel
16	157094	4	Cushion Connector
17	720001	4	Lock Washer
18	717001	4	Hex Nut, Full
19	1608962	1	Throttle Control Assy.
20	928732		Hex Capscrew
21	156151	1	Special Capscrew
22	926271	1	Cable Clamp, Throttle
23	924856	1	Hex Capscrew, Washer
24	917642	4	Plain Washer
25	923362	4	Hex Nut
26	901496	1	Pipe Nipple
27	901752	1	Pipe Cap
28	158433	1	Plug Button
29	1608917	1	L.H. Wheel Assembly
30	159156	2	Tire
31	1603991	2	Tube
32	156305	2	Valve Cap
33	1608916	1	R.H.Wheel Assembly
34	158436	1	Plug Button
35	722009		Cotter Pin
36	118053		Pin
37	917398	3	Hex Capscrew
38	715067	2	Taptite Screw
39	919316	1	Capscrew , Plate
40	1608963	1	Heat Shield w
41	1608980	1	Heat Shield Support
42	1608994	1	Spacer t
43	919381	2	Flat Washer
46	1608919	1	L.H. Rear Wheel & Tire Assy.
47	1608918	1	R.H. Rear Wheel & Tire Assy.
48	715067	3	Taptite Screw, 1/4-20 x 3/8
49	1608963	1	Heat Shield
50	1608980	1	Heat Shield Support

## MOWER CONTROL GROUP

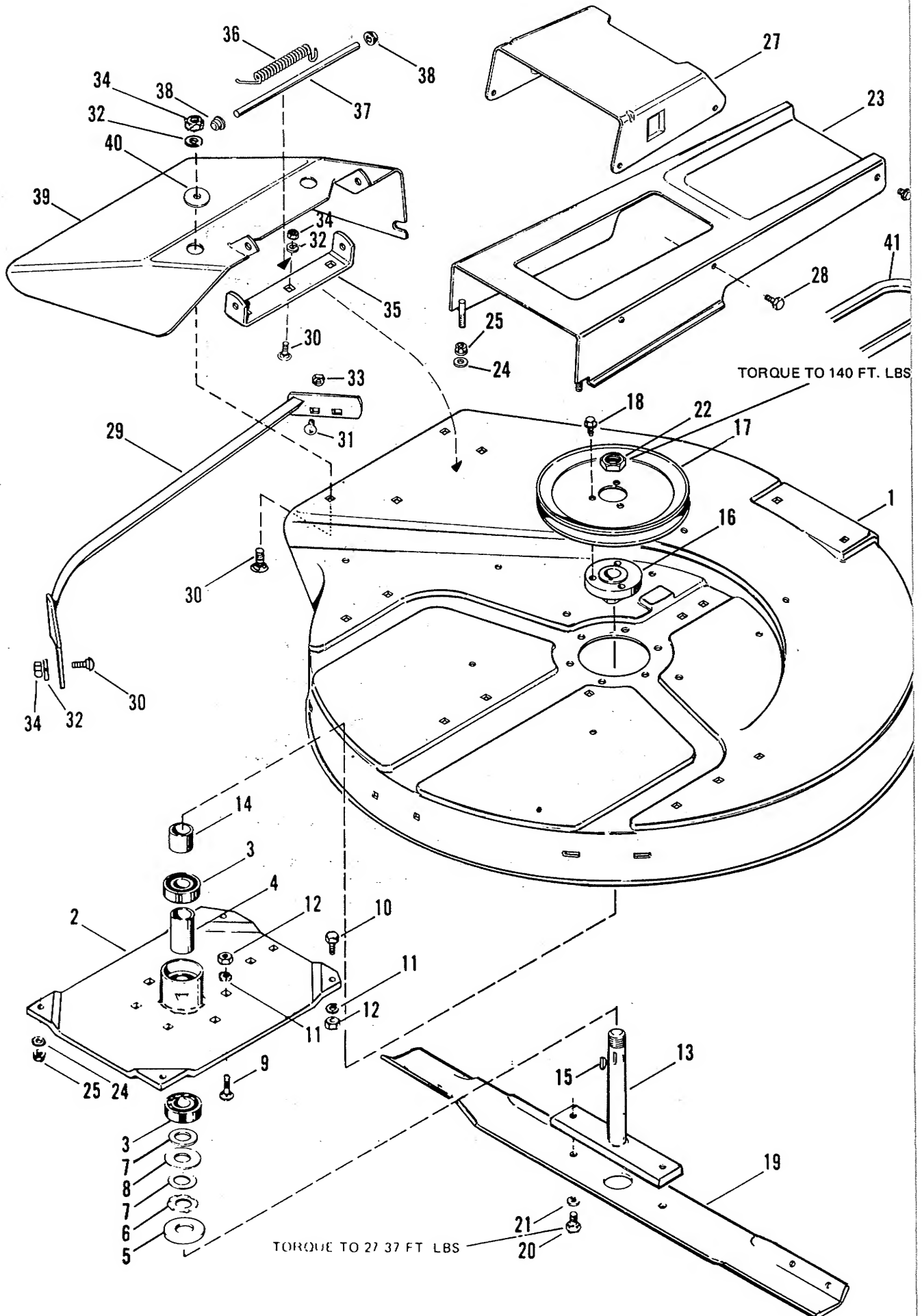




# MOWER CONTROL GROUP

Ref. No.	Part No.	Qty. Req.	Description
1	1608949	1	Arm Assembly
2	176769	1	L.H. Pivot Bracket
3	176770	1	R.H. Pivot Bracket
4	702022	4	Carriage Bolt, 5/16-18 x 5/8"
5	720001	4	Lock Washer, 5/16"
6	717001	4	Hex Nut, Full, 5/16-18
7	1602211	2	Roller Support Bracket
8	702022	4	Carriage Bolt, 5/16-18 x 5/8"
9	720001	4	Lock Washer, 5/16"
10	717001	4	Hex Nut Full 5/16-18
11	719003	4	Plain Washer
12	1608940	1	Front Mower Bracket
13	702022	2	Carriage Bolt
14	720001	2	Lock Washer
15	717001	2	Hex Nut
16	1608947	1	Link Arm Assembly
17	175942	1	L.H. Adjusting Arm
18	176736	1	R.H. Adjusting Arm
19	157215	2	Eyebolt
20	1602244	2	Retaining Ring
21	717016	2	Hex Jam Nut, 1/2-20
22	715096	2	Hex Capscrew, 3/8-16 x 1
23	153081	2	Spacer
24	719001	4	Washer
25	717510	4	Hex Lock Nut (Center Lock)
26	108711	2	Shoulder Bolt
27	1607603	2	Roller Support Assembly
28	1602186	4	Shoulder Bolt
29	719003	3	Plain Washer, 7/16"
30	720002	4	Lock Washer, 3/8
31	717003	4	Hex Nut, Full 3/8-16
32	177351	4	Plain Washer
33	722011	4	Cotter Pin, 3/16 x 1
34	1602721	2	Roller Assembly
35	108419	4	Bushing
36	176775	1	Handle
37	108172	1	Pivot
38	722002	1	Cotter Pin
39	176777	1	Rod Guide Assembly
40	176985	1	Grip

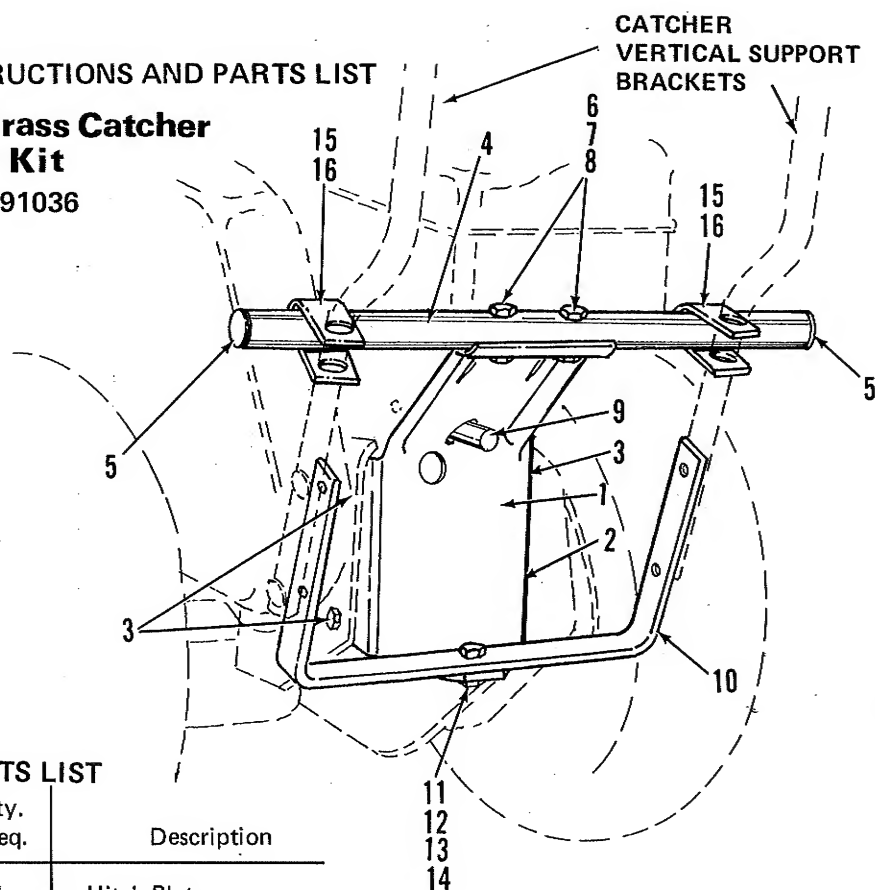
# MOWER HOUSING



# MOWER GROUP

Ref. No.	Part No.	Qty. Req.	Description
1	1608351	1	30" Mower Housing
2	176986	1	Arbor Tube Assembly
3	108202	2	Ball Bearings
4	176984	1	Spacer
5	108182	1	Washer
6	108181	1	Washer
7	108472	2	Washer
8	108257	1	Washer
9	702024	6	Carriage Bolt, 5/16"-18 x 1" lg.
10	705007	2	Hex Capscrew, 5/16"-18 x 1" lg.
11	720001	8	Lock Washer, 5/16"
12	717001	8	Hex Nut, Full, 5/16"-18
13	176889	1	Arbor Assembly
14	176843	1	Spacer
15	725006	1	Key
16	176340	1	Pulley Hub
17	1608959	1	Pulley
18	177932	3	Thread Forming Screw 3/8"-16 x 3/4" lg.
19	176839	1	30" Blade
20	923490	2	Hex Capscrew
21	720002	2	Lock Washer, 3/8"
22	717517	1	Hex Jam Nut, 3/4"-16
23	176772	1	Lower Cover Assembly
24	719002	4	Plain Washer, 5/16"
25	717511	4	Hex Locknut (Center Lock)
26	715114	2	Hex Capscrew, 3/8"-16 x 1/2" lg.
27	176791	1	Upper Cover
28	715067	2	Screw, Taptite, 1/4"-20 x 3/8"
29	1608374	1	Stone Guard Assembly
30	702015	6	Carriage Bolt, 5/16"-18 x 3/4" lg.
31	702022	2	Carriage Bolt, 5/16"-18 x 5/8 Lg.
32	720001	7	Lock Washer, 5/16"
33	717530	2	Hex Nut, Full, Lock. 5/16"-18
34	717001	8	Hex Nut, Full, 5/16"-18
35	1608281	1	Support
36	1608348	1	Spring
37	1608293	1	Pin
38	170015	2	Push Nut
39	1608357	1	Deflector
40	8161199	2	Special Washer
41	1608957	1	"V" Belt

**MFG. NO. 991036**



Ref. No.	Part No.	Qty. Req.	Description
1	1608938	1	Hitch Plate
2	925003	1	Washer-head Screw
3	924856	3	Washer-head Screw
4	1608958	1	Rear Tube
5	1608835	2	Button Plug
6	919933	2	Hex Capscrew
7	917356	2	Lockwasher
8	917372	2	Hex Nut
9	901496	1	Pipe Nipple
10	177392	1	Support Bracket
11	907731	1	Hex Capscrew
12	917378	1	Flat Washer
13	916965	1	Lockwasher
14	916950	1	Hex Nut
15	177391	2	Clamp
16	922123	2	Thread-cutting Screw

1. Remove drain plug from rear of engine and drain engine oil. Install pipe nipple (9) in drain hole and install a cap securely on nipple. Fill crankcase with clean 10W-30 grade MS motor oil.
2. Secure rear hitch plate (1) to frame with four washer-head screws.
3. Secure rear tube (4) to hitch plate (1) with two capscrews (6), lockwashers (7), and hex nuts (8). Install two button plugs (5) on ends of tube.
4. Secure two clamps (15) on rear tube (4) with two thread-cutting screws (16).
5. Secure support bracket (10) to bottom of hitch plate (1) with one capscrew (11), flat washer (12), lockwasher (13), and hex nut (14).
6. Two vertical support brackets for the grass catcher may then be inserted through the clamps and secured to the support bracket and frame.